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CORPORATION
36-14 35th STREET
LONG ISLAND CITY 6, N. Y.
PRIVATE LABEL SOAP

Drug and Cosmetic Industry

Contents **October 1961 Vol. 89 No. 4**

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Drug & Cosmetic Industry is published monthly by Drug Markets, Inc., Frazer V. Sinclair, President and Treasurer; Paul W. Alexander, Executive Vice-president and Secretary. Editorial and General Office: 101 West 31st St., New York 1, N. Y., U.S.A. Telephone, LOngacre 3-3177. Publication Address: Sun Printing Corp., 28 Renne Ave., Pittsfield, Mass., U.S.A.

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Subscription price $3.00 a year, in advance. Foreign Countries, $5.00. Single copies, 35c. Back issues 50c. Second-class postage paid at Pittsfield, Mass. Member of Audit Bureau of Circulation.

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By the publishers of ***Drug and Cosmetic Industry***

Beauty Fashion. The magazine of personal selling. Yearly subscription in the U.S.A., $3.00.

Drug and Cosmetic Catalog. Directory and data for manufacturers. Published every two years. $4.00 in the U.S.A.

Trade Mark Record and Supplements. Complete trade-mark listing of perfumes and cosmetics. $15.00.

Books. Technical information for manufacturers of drugs and cosmetics.

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"I'm not interested in a money-back guarantee . . . I want a *man-back* guarantee!"

Keeping Posted

Soap and Synthetic Detergent Sales

Soap and synthetic detergent sales rose to a new high in the first half of 1961, according to reports from 51 manufacturers participating in the quarterly sales census conducted by the Association of American Soap & Glycerine Producers, Inc. Sales totalled 2,220,385,000 pounds valued at $560,732,000. Compared with the first half of 1960, sales are up 2.1 per cent in volume and 2 per cent in value.

Synthetic detergent sales totalled 1,697,620,000 pounds and $408,968,000, an increase of 4 per cent in volume and 3.6 per cent in value from the first six months of last year. Sales of synthetic detergent shampoos totalled 12,677,000 pounds valued at $12,990,000, compared with 11,462,000 pounds valued at $10,946,000 in the first half of 1960.

Packaging Rules

Activity by a number of state governments and by the federal government over enforcement of the Weights and Measures Act and the Food, Drug and Cosmetic Act in regard to the marking of net contents on packages will mean some headaches for some big companies.

The law states clearly that the label on packages must contain a statement of net contents in terms of weight, measure or numerical count depending upon the type of product. This statement must be "conspicuous as compared with other words, design or devices appearing on the label." This is a fair enough rule and it appears that it will be aggressively checked and enforced by states as well as the federal government.

Unfortunately for some companies in the industry and, notably for the biggest companies with very large runs, we have yet to achieve perfection in package filling. The package machinery people have made enormous strides during the last twenty years in developing machines that can fill containers at a continually increasing rate of speed and with a high degree of accuracy. Nevertheless, perfection has not yet been attained.

Of course, no manufacturer ever gets credit or has his product seized or receives wide spread publicity in a government release because of an overfill, as it can and does happen. His misfortune takes place when a slack fill occurs, as is bound to happen occasionally on the production line run at exceptional speed.

We suppose manufacturers will have to adopt the attitude of the president of Campbell Soup, quoted in a recent article. In his opinion, perfection must be attained, because the consumer judges each product by the particular package that she is using at the time.

For that reason, an occasional penalty for a manufacturer because he is doing too good a job in his factory in speeded-up efficiency, may be something that he will have to take philosophically.

Don't Strike That Match!

Here is something for the man who has everything to look forward to. A new machine has been designed for tipping cigarettes with a tobacco company's new patented formula making a self-lighting cigarette possible.

Saving Rare Plants

When modern man comes into a primitive area, the balance in nature or the ecosystem is upset and some of the plants, animals and insects are unable to adjust themselves to the new environment.

According to a recent news report, Dr. Hurlimann, a specialist in medicinal plants for the Ciba Pharmaceutical Company, warned the French authorities in New Caledonia, a few years ago, that a hydroelectric project would inundate a valley bright with plants found nowhere else.

A more careful study made later, discovered that only one species was unique to the valley, and this

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species, together with a number of other rare types, was moved to the sanctuary.

In a recent symposium on this subject it was agreed that not a single species should be allowed to become extinct. This was not an esthetic or spiritual belief but a conviction that a plant which may seem useless now, may later prove to contain some vital drug or other valuable product.

FTC Questionnaires

The unhappy favorites in Washington today, are the heads of the large companies. The latest headache is the selection of the 100 largest drug and cosmetic manufacturers by the Federal Trade Commission to receive mail questionnaires requiring detailed information concerning prices, discounts, allowances, services, commissions and payments available to customers. Here are some of the queries that 37 pharmaceutical companies must answer.

1. The total dollar volume of sales in the United States of prescription drugs and drug products containing antibiotics, barbiturates, tranquilizers, hormones, antihistamines, vitamins, narcotics, or sulfonamides.

2. A complete list and description covering each dosage form and package size of each prescription drug and drug product.

3. The type and number of sales force (missionary and detail men, commission men, and so forth) with a short explanation of their respective duties.

4. All classifications of customers for pricing purposes (such as independent druggists, chain stores, doctors and mail order houses) and the amount of discount granted to each catagory.

5. Each type of advertising or promotional allowance, each type of service and facility, the catagory of customers to whom these are extended, and the methods of notifying each customer classification as to their availability.

6. A copy of each advertisement which mentions or advises of the claimed therapeutic effect, symptomatic relief or of the side effects of prescription drugs and drug products.

7. Samples of labels for each prescription drug and drug product sold or distributed from January 1, 1959, to date.

8. Particulars on transactions with customers in five selected trading areas.

Discount Electric Razors

Just what kind of a psychological value of product or company image do the electric razor people think they are getting from the open wholesale discounting of their product?

For the last two or three years, we have heard it repeatedly stated that anyone who paid the list price for an electric razor ought to have their head examined. This is obviously true because the metropolitan newspapers have repeatedly carried advertising from the leading brands with discount prices listed along with the manufacturer's list price.

For instance, in the *New York Times* on August 28th, Macy's had a half column advertisement about the "New Schick Shaver From Macy's." Then in big type, "Only $18.88" and under that, "Manufacturer's list price $31.50."

The price antics of the automobile industry, at least until recently, plus the wide spread advertising of the discount houses, had given the American public the idea that the system of the Arabian bazaar had been introduced and accepted in American retailing. John Wanamaker and his pioneering in the one price system, which gave the American public a feeling that they should shop for quality but not necessarily for price, has completely disappeared and is being replaced by a feeling in America that it is practically the act of a juvenile delinquent to buy anything without a regular program of shopping and price comparison.

Maybe this is a constructive step in distribution, but we think that a very serious psychological block to public spending is being built up.

FTC Undecided

The Federal Trade Commission has been off again, on again, in its ruling on payments made by suppliers to their customers for "no tangible consideration."

Recently, in the case of an apple distributor, the FTC hearing examiner ruled, for the second time, that the distributor violated Section 2 (D) of the Robinson-Patman Act by participating in a customer's anniversary sale. No payments were made to this customer's competitors on a proportional basis.

The full commission then dismissed the charges on the grounds that the payments were not advertising allowances but were "sporadic" payments "for which no tangible consideration was expected." It accepted the argument of the distributor that the payments were "congratulatory good will gestures" rather than advertising allowances.

Then the commissioners changed their minds and decided it would be "in the public interest" to send the case back to the hearing examiner for taking of more evidence.

At this new hearing the distributor did not appear again and the examiner again ruled that the firm's payments were unlawful.

Now the full commission is again expected to hear an appeal.

With an effort we refrain from editorial comment here.

Patent Proceedings

Here is the history of the patent on tetracycline. It seems to us that this is quite a bit different from some of the publicity that has surrounded the charges leveled against Pfizer and Cyanamid.

In October of 1952 Pfizer applied for a patent on tetracycline. In March of 1953 Cyanamid applied

for a patent on the same drug. A question arose as to who had come up with the discovery of the new drug. As is customary in such a situation, the Patent Office, after a preliminary determination that tetracycline was patentable, declared an "interference." Following normal procedure, the companies decided that, rather than go through a long, costly and cumbersome interference proceeding, they, represented by their attorneys, would on the basis of a full disclosure of all pertinent information try to determine who had prior right to the drug. Pfizer was found to have the prior right, and under the agreement licensed Cyanamid to manufacture and sell the drug.

The arrangements between Pfizer and Cyanamid were not made secretly but were set forth in formal agreements. The Department of Justice previously reviewed the background and terms of these license agreements in the spring of 1955 and did not challenge them in any way.

Salesmen vs. Supermarket

Here's what people selling to supermarkets may be up against more and more. A certain supermarket had two clerks in the baby food department. A salesman for a baby food firm on each of his regular calls went into the department and helped arrange a display and arrange his company's merchandise, replacing soiled or dented packages.

The union now demands that a third clerk be retained to do display work and that the salesman be barred from doing any promotional work at all at the supermarket.

The union demand to oust salesmen out of stores for display, promotion, arranging stock, checking inventory, and so on, is growing throughout the country in the bigger chains.

Use of Computers

Among the things to come are undoubtedly a far wider application of computers as a source of medical information. For instance, the International Business Machine Corporation has prepared a 250-page publication, "KWIC Index to Neurochemistry," where quick reference to any one of 2,000 articles published on this subject in the last 18 months or any part of them can become instantaneously available.

Artificial Flowers

The artificial flower business is worth $70 million and is growing rapidly. Their newest innovation is the artificial flower that can be cleaned by holding it under the faucet or putting it under the shower.

This artificial flower is scented. We understand that one of the companies in the business of scenting artificial flowers is the Puritan Chemical Company.

Food Market Statistics

Food markets in 1960 devoted 12.2 per cent of selling space to non-foods. 98 per cent of these markets carry health and beauty aids and 37 per cent of these stores, serviced by outside sources, such as wholesalers or rack jobbers as stores, differentiated by direct buying from the supplier.

Sales of health and beauty aids totalled $864 million or 2.5 per cent of total sales.

These figures are taken from a survey by the magazine *Super Market Merchandising.*

Package Protection

The Eastman Kodak Company has just won a significant court decision in package protection. In this decision the Royal Pioneer Paper Box Manufacturing Company of Philadelphia was ordered to discontinue the manufacture and sale of photographic film boxes that resembled the distinctive Kodak color combination of a "predominantly yellow background with red or black or both colors."

The court upheld Kodak's exclusive right to its style of packaging.

FTC Checks Quality Control

The Federal Trade Commission announced separate complaints against two New Jersey drug concerns, Zenith Laboratories, Inc., of Englewood, and Kenworth Laboratories, Inc., of Orange, charging each with misrepresenting that it employs an adequate control system. The FTC alleges that neither company has an adequate control system, contrary to advertising claims. The complaint against Zenith further alleges that some of the concern's timed disintegration capsules disintegrate in significantly less time than the claimed 8 to 10 hours and do not disintegrate at an even rate as advertised. Zenith is also charged with falsely advertising that its laboratory includes experimental animals.

Hemorrhoid Investigation

An industry-wide investigation of the advertising of products offered for the relief or treatment of hemorrhoids was announced by the Federal Trade Commission.

Letters are being sent to more than 100 makers of hemorrhoid products to determine whether their advertising may be exaggerating the efficacy of the products. Where the claims appear to overstate the merits of the product, the makers will be required to give the Commission staff more detailed information on the evidence on which the claims are based.

The letters now being mailed call for the makers of such products to submit to the Commission: (1) representative samples of all hemorrhoid advertising, regardless of which media were used, disseminated in the past six months; and (2) quantitive formula for each such product offered for sale by the maker.

On the basis of the information thus supplied, those concerns whose advertising appears to be questionable will be required by Section 6 orders to submit more detailed information pertaining to their claims •

An evaluation of cosmetic retail sales by states is another way to find your best customers.

COSMETIC SALES BY STATES

Cosmetic marketing executives like statistics. They like to have their advertising agencies base decisions on statistics.

For this reason, the trade is fairly well supplied with a pretty good inventory of plain and fancy figures. Some of these figures are relatively up to date; others conceal their age like a frivolous lady.

The statistics used by the cosmetic industry are, in a few cases, factual. The principal examples are the Manufacturer's Census and the report by the Internal Revenue on cosmetic tax collections. As for the rest, the statistics are either the result of serious market investigations, of calculated and informed estimates, or, too frequently, of guess-estimates.

The Manufacturer's Census is the basis for projecting sales by product categories in the cosmetic industry. Each year product sales can be calculated by adding to this base the ratio of sales gains or losses reported by leading manufacturers in each category. The result is the annual estimate of cosmetic sales by product groups.

Newspapers and magazines offer a heavy barrage of statistical material for cosmetic advertisers. It is difficult to coordinate and use a great deal of this useful survey material. For one reason, there is almost a complete lack of uniformity among the surveys; for another, a great many surveys are solely concerned in giving a picture of the magazine's audience, which may, or may not, be a cosmetic market that can be adjusted to broader study.

For instance, *Seventeen* magazine is a clearly definable market for anyone in the cosmetic industry interested in reaching the teenage group. But what do you do with a survey of *McCall's* or the *New Yorker* when you are trying to make an over-all market study?

It is true that a large group of leading metropolitan newspapers have adapted a standard form of survey which gives an extremely useful market picture so far as the leading metropolitan markets go. However, when a statistician proceeds in an attempt to study and classify the value of the small city, the small town and the farm market, he soon finds himself lost in a welter of uncoordinated material.

Quite a considerable number of cosmetic companies have spent very substantial sums of money with market research firms. Their studies may be conducted in the home or in stores, with various ways of obtaining a true picture of the complex cosmetic market. The psychologist, the social scientist, even

the anthropoligist, have joined the statistician in these studies.

Since these surveys usually cost a great deal of money, they are closely guarded secrets. However, when available, they reveal an enormous wealth of material on the purchase and use of the different cosmetic products by age groups, economic and socio-economic groups, geographical areas, influence of employment, school or home environment and so forth. It is a remarkable experience to anyone studying these surveys to see the enormous variation in the repeated use of different cosmetics according to the effects of these factors. This industry, unquestionably, has a long way to go before statistics of this kind become generally available, are properly appraised from the viewpoint of advertising and selling, and before people in the industry realize the tremendous potential that lies ahead in many areas.

The statistical figures which can be secured with a little effort at the Internal Revenue Bureau give the total tax collections on all taxable cosmetics by states. It would seem that this would be an essentially

valuable statistic for this industry, but from a marketing viewpoint, these figures are filled with so many bugs that they are essentially useless without a great deal of statistical work based on industry information resulting in a calculated estimate of sales by states.

This is what we have attempted to compile.

At first glance one might think that the monthly reports of the tax collection bureau would reveal the monthly fluctuating sales of this industry, but nothing could be further from the truth. Tax payments are delayed from 15 to 45 days and there is essentially no way of telling from the reported figures of the bureau exactly when the sales took place in the retail store. The only way that the fluctuation of monthly sales can be reported is by a statistical method based on the high peak reached in Christmas sales. The reports reveal December as a moderate month in sales, which of course we know is not true, January as an extraordinary month and February as a month quite a bit better than universal trade experience has found it. For this reason, in looking at these Internal Revenue figures, we can say with justification that the bulk of Christmas sales are really reported in January with a portion calculated from 20 to 25 per cent extending over into February.

It is in estimating the sales by states that the tax figures are even more misleading. These do not at all represent cosmetic sales made in retail stores within a state, but collections reported from a state to the Internal Revenue Bureau. For instance, one enormous enterprise, which reports cosmetic retail sales tax at ten per cent on nearly $200 million of business, compiles its report, not by individual state, but from six centralized administrative divisions. After considering all of the major chain enterprises including drug, food, and variety stores, engaged in cosmetic retailing, it would seem that a very substantial part of cosmetic sales exceeding one-third of the total are reported, not by the state in which the sales were made, but by the state in which administrative or division headquarters are located.

This is why New York, Pennsylvania, Ohio, Michigan, Illinois, and California, have an extraordinarily high figure of sales according to the Internal Revenue Bureau.

We have made a detailed study of the Internal Revenue state reports by comparing them against a wide variety of other authentic sales figures. We think that these studies give us an approximately true report of cosmetic retail sales by states.

For instance, through the courtesy of a leading company we were able to study the detailed figures of their annual retail sales as compared to their administrative payment to the Internal Revenue. We have received some figures from a number of chains which have been helpful in guiding us toward an estimate. We have, however, been particularly guided in this study by two basic figures—the total retail sales by states; the effective income by states.

Our own past studies have shown only a minor fluctuation in cosmetic sales as a percentage of disposable income or effective spending power. We have used the effective spending income for each state as a percentage indication of that state's business activity.

Therefore, the figures in TABLE 1 showing cosmetic sales at retail by states, have been arrived at by using as a base the last reported figures of cosmetic tax collections reported by states to the Internal Revenue Bureau. These figures are, in effect, the cosmetic tax collections by states. Multiplied by ten they give the amount of total cosmetic business as reported to the Internal Revenue Bureau by states.

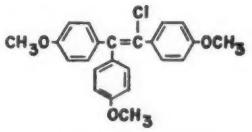
But as we have pointed out above, the essential weakness of these figures, is that a large volume of cosmetic sales are reported from a limited number of administrative or accounting centers. We have adjusted these figures in accordance with information furnished by some of the big reporting companies.

We have then reduced the figures of retail sales by states and effective buying income by states to a percentage for each state. These percentage figures have been applied against the total United States cosmetic sales figures. The resulting adjustment and compromise of all of these figures are shown in TABLE 1. We cannot state that these figures are perfectly accurate, but we do believe that they come within a narrow percentage of the true value of each state in cosmetic sales.

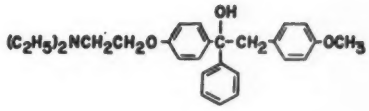
(*Continued on page 518*)

BRINGING MER/29 TO MARKET

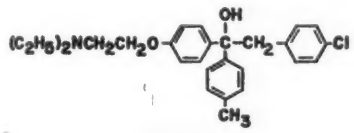
BY MILTON MOSKOWITZ



CHLOROTRIANISENE



ETHAMOXYTRIPHETOL



MER-29

Merrell's research in non-steroid synthetic drugs produced MER/29. Chemists first came up with an estrogen, chlorotrianisene, and then an estrogen antagonist, ethamoxytriphetol, and finally triparanol (MER/29).

1960 was not a spectacular year in the pharmaceutical industry for new products, but one that made the grade with flying colors is MER/29, a new cardiovascular agent from the laboratories of Wm. S. Merrell Company, Cincinnati. Next to Librium, the highly successful tranquilizer introduced by Roche Laboratories, MER/29 was probably the outstanding new product of 1960. How successful was MER/29? Well, consider this: The Merrell company has been around for a long time—since 1828, in fact—but in one year this new product became its No. 1 seller, with an annual volume in excess of $5,000,000. Moreover, the chances are good that this may only be a drop in the bucket, compared with the potential market this product may eventually achieve.

Behind the development of MER/29 were some five years of research at Merrell, part of a gerintology project. The drug, triparanol, was synthesized in 1956 by Frank P. Palopoli, a Merrell chemist. It was to take another four years of testing and clinical trials before it was actually marketed.

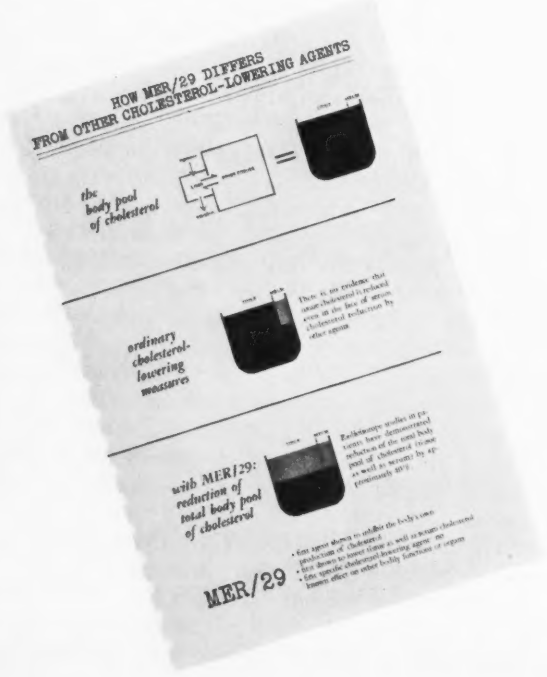
This was another dramatic example of effective molecule manipulation. Mr. Palopoli has explained that Merrell researchers had been working for some time to develop "non-steroidal compounds that would have a specific clinical indication and be devoid of the undesirable characteristics (that is, the side-effects) of the steroids." One of the first compounds to come out of this program was chlorotrianisene, a synthetic estrogen. Later, Merrell researchers produced ethamoxytriphetol, an estrogen antagonist. Out of this work came triparanol, which Merrell dubbed MER/29 after the code number of the research project. This was a rather unique way of naming a product. Structurally, MER/29 bears a close relationship with its predecessor, ethamoxytriphetol. The chemists replaced hydrogen with a methyl group and used chlorine in place of methoxyl. However, these "minor changes" give MER/29 its unique pharmacological properties. MER/29 is neither an estrogen, nor an estrogen antagonist. It is a unique compound and Mr. Palopoli has pointed out that even minor variations in its structure—for example, a simple change in the amine portion of the molecule from diethylamino to dimethylamino—are enough to reduce greatly its effectiveness.

What, specifically, is the therapeutic action of MER/29? And how important is it? MER/29 is a cholesterol-lowering agent and is therefore of prime importance in the treatment of our No. 1 killer, heart disease. Cholesterol is a fat-like, waxy substance produced in the body by various organs, chiefly the liver. Various studies have shown that a high level of cholesterol goes hand in hand with hardening of the arteries and coronary heart disease. The cholesterol theory has been officially endorsed by the American Heart Association, which last year advised Americans to cut down on consumption of animal fats by "reasonable substitution" of vegetable oils and other unsaturated fats. MER/29, however, is not the same as Mazola. For this drug affects the formation of cholesterol *within the body* and is the first agent to lower tissue as well as serum cholesterol. The body is estimated to produce three times as much cholesterol as that obtained from the diet—so MER/29 represents a more fundamental approach to this problem than dietary changes. As a matter of fact, if MER/29 lives up to its promise, then cholesterol levels can be reduced significantly *without any special diet.*

The marketing of MER/29 posed special problems and represented the greatest marketing program ever undertaken by Merrell. This was an entirely new product—to this day it still has no direct competitors —and this necessitated a broad-scale informational

One year after MER/29 was introduced, Merrell sent to doctors in the mail, a 24-page booklet giving a progress report.

Merrell got over its point that MER/29 reduces tissue as well as serum cholesterol with graphic representations such as this.


HOW MER/29 DIFFERS
FROM OTHER CHOLESTEROL-LOWERING AGENTS
the body pool of cholesterol
ordinary cholesterol-lowering measures
with MER/29: reduction of total body pool of cholesterol
MER/29

and educational program to brief the medical profession on what MER/29 is, what it is supposed to accomplish and how it should be used. There could be no fancy bar charts comparing MER/29 activity with that of an agent already in the field. MER/29 was the *first* in the field and while this is usually an advantageous position for a company, it is also a difficult one because doctors are loathe to prescribe a drug which does not have a long track record. Merrell was, of course, well aware of these special circumstances and it mapped out its campaign carefully, well in advance.

The key point in the introduction of a new drug is, of course, the record of the clinical trials—and Merrell was able, with MER/29, to amass an imposing weight of evidence to indicate the activity of the drug in reducing cholesterol levels. For the advertising copywriter, this evidence was like money from home—ready ammunition. Before making MER/29 available to the medical profession, Merrell wanted to bring as much of this evidence as possible to the forefront in a dramatic fashion. This it did at Princeton, N. J., on December 16 and 17, 1959, when it brought together 37 investigators and clinicians for the "Conference on MER/29." Under the chairmanship of Dr. Irving S. Wright, professor of clinical medicine at Cornell University Medical College, this conference discussed and reviewed the clinical evidence relating to MER/29. Among the participants were Drs. Joel Avigan, section on metabolism, National Heart Institute; Konrad E. Bloch, professor of chemistry, Harvard University; Charles K. Friedberg, director of the division of cardiology, Mount Sinai Hospital of New York; Radovan Ivancic, research fellow in the vascular research laboratory of the New York Hospital; John H. Moyer, chairman of the department of internal medicine at Hahnemann Medical College; Irvine H. Page, chief of the division of research at the Cleveland Clinic; Daniel Steinberg, chief of the section on metabolism, National Heart Institute; and Robert W. Wilkins, professor of medicine, Boston University School of Medicine. Closing the clinical section of the conference on the second day, Dr. Page expressed his appreciation to the Merrell company for "putting on what seems to me to have been a very objective and intellectually high-level symposium. The analysis of a vitally important problem has been furthered by the contribution, I think, of an important substance. Thank you." Responding to this praise, Dr. Irving S. Wright of Merrell said:

"I would like to close this very interesting symposium with one additional comment. If more drugs had been subjected to this kind of review early in their life histories, many mistakes and millions of dollars would have been spared physicians, patients and pharmaceutical companies. This is the way a new drug should be reviewed, critically and without bias, so that new directions for investigation and eval-

(*Continued on page 490*)

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HORMONE CREAMS

BY GAVERN T. WALKER

Although the real value of hormone creams has been under discussion by physicians and cosmetic chemists for a number of years, at the present time, due to the work of Goldzieher,[1] Traub,[2] and Eller and Eller,[3] among others, the beneficial effects of oestrogen preparations upon female skin have been amply demonstrated.

The amount of hormone to include in a hormone cream often has been discussed, and it is now fairly generally agreed that, to be effective, a hormone cream should contain from 7000 to 15,000 I.U. of estrone per ounce. This estrogenic content produces, on the female skin, a definite regeneration of the surface epithelium, together with an increase in the thickness of cell layers of the epidermis. In addition, aged skin exhibits a more youthful appearance. Preparations containing estrone in amounts greater than 15,000 I.U. per ounce do not fall into the category of cosmetic preparations; rather, they are classified as therapeutic products.

Levenstein,[4] in his excellent review of hormone creams, remarks that the correct formulation of a hormone cream depends upon its containing no elements to which the average individual is sensitive; promoting a slow, but uniform absorption of the estrogenic product; and not changing the *p*H of the skin to any great extent. Since the hormone must not be absorbed into the skin too rapidly, the cream should not contain alcohol or other solvents, since these tend to increase the rate absorption of the hormone.

Courtesy Helena Rubinstein

A water-in-oil type of emulsion seems to be the generally accepted formulation for hormone creams, since the continuous oil phase, containing the hormone, ensures direct contact with the skin, and, furthermore, the hormone is slowly absorbed by the skin.

There are now available a host of emulsifiers for the preparation of very stable water-in-oil emulsions, so that no real difficulties will be met with here. Levenstein gives three formulas for hormone creams. His No. 3 formula is:

Ingredients	Per Cent
Beeswax	5.0
Petrolatum	45.0
Arlacel C	10.0
Peach Kernel Oil	10.0
Mineral Oil 65/76	25.0
Hormone Oil	0.5
Lanolin	4.5
Preservative	q.s.
Perfume	q.s.

All the ingredients are heated together to a temperature of 65°C., with stirring, perfume is then added at 55°C., and the cream filled out at the latter temperature.

Another useful formula[5] is:

Ingredients	Per Cent
Beeswax	11.0
Spermaceti	4.0
Cetyl Alcohol	2.0
Cholesterol	0.5
Lanolin absorption base	10.0
Almond Oil	5.0
Avocadro Oil	5.0
Raisin-seed Oil,	5.0
Diethyl sebacate	7.0
Isopropyl Myristate	8.0
Diethyl Adipate	3.0
Antioxidant	q.s.
Borax	0.8
Water	38.7
Preservative	q.s.

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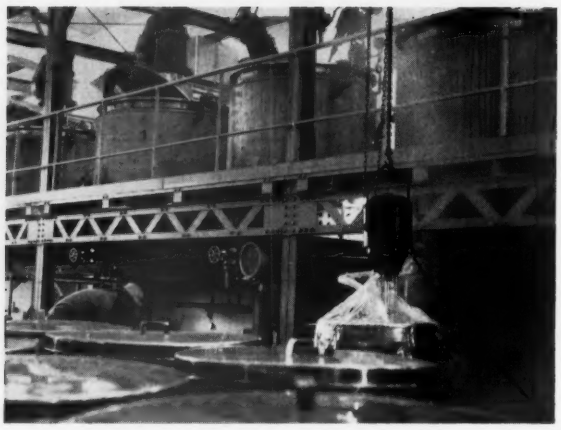

In the cosmetics mixing division of the Shiseido Company, cosmetics are mixed and blended until the desired shade and texture is obtained.

Mr. Siegel recently returned from Japan, where he toured the Shiseido Cosmetic Company's two plants, and observed the country's changing cosmetic trends.

THE JAPANESE

BY MAURICE SIEGEL, Ph.D.
DIRECTOR OF RESEARCH, CARYL RICHARDS COMPANY

Unlike the United States, Japan concentrates ten per cent of its population within Tokyo, (compare this with a little over two per cent in New York City and the greater difficulty to get production absorption for the United States) and of the thirty million women of age to use cosmetics, less than twenty per cent are purchasers. With the rising standard of living and the quickening breakdown of older Japanese customs, the remaining eighty per cent will become the target for American, European (mainly French perfume houses and a few German cosmetic firms) and Japanese cosmetic manufacturers.

The social position of the women has improved, though not nearly as much as western ideas demand but still enough to show a steady increase in the use of cosmetics. Western clothes are predominant in Tokyo now, though the older women continue to wear the kimono and obi. The wearing of traditional Japanese clothes brings with it an attitude toward a simple and unassuming adornment with cosmetics, both for the hair and the face. Lipstick is more universal in its use and is less affected by traditional dress. The younger girls, affected by western styles of clothing, have made more use of different lipstick colors, eye makeup, shorter curled and styled hair.

Cosmetic spending has been on a sharp yearly increase, averaging about fifteen per cent per year for the last six years, with the total near 128 million dollars for 1960, exclusive of soaps and dentifrices. Available information lists the foreign imports of cosmetics at about five per cent of this amount, but changes are in progress. The restrictions on such imports are over.

This Japanese girl works seven hours a day, six days a week, capping nail enamel. All employees of the Shiseido factory are unionized.

Loose face powder, one of over four hundred products produced by the Japanese cosmetic firm, is pressed into pans, leveled and packaged.

Finishing touches are put on lipsticks by this assembly line. Shiseido's newest pastel lipstick shades, Candy Colors, are being widely promoted.

The outer metal container is placed over the lipstick, polished, and the finished product put in a wooden box and sent to the packaging room.

COSMETIC INDUSTRY

In the past, an importer of cosmetics had to get an allocation from the Ministry of Industry and Trade, since the purchase had to be made in dollars. The Ministry controlled all imports and was unwilling to release dollars freely. Most of the spending was used for the purchasing of machinery to build up the industries. Therefore, not many requests were accepted for importing foreign cosmetics. The United States government had been suggesting for some time that Japan should open her doors to help counterbalance the large exports she was making to the United States. Only recently has the yen stabilized itself, (as seen by the virtual disappearance of a money black market) allowing the Japanese government to permit dollars, for cosmetic purchases, to leave the country without permission. The Max Factor Company, with a plant in Japan, has become the largest selling foreign company to Japan.

On visiting the Shiseido Cosmetic Company's plants, the largest cosmetic manufacturer in the Orient, and talking with several of the firm's executives, it became apparent that because of the liberalization of the import restrictions, they foresaw much stronger competition between American and Japanese companies, not only from a technical level but from advertising techniques. I was also told that they are considering a higher priced prestige line because of the request from their customers. However, paradoxically, the Japanese Socialist party poled the Japanese women, discovering what they wanted most were less expensive cosmetics. Both views are encouraging, for it shows that while cosmetics are in demand by some, there is also a wide spread desire

(Continued on page 516)

Bottling at Shiseido is done by hand. As the bottles travel on a slow moving conveyer-belt, they are filled, labeled, sealed and stacked.

In the packaging room, cosmetics of all kinds are packaged for shipment to Shiseido Company beauty shops and other retail stores in Japan.

PSYLLIUM SEED AS A LAXATIVE

BY JOSEPH FRANKLIN MONTAGUE, M.D., F.A.C.S., F.I.C.S.

Dr. Montague, world-famous proctologist and author, continues his strong advocacy of the use of psyllium seed as a laxative. His discussion of this material, which he introduced more than 40 years ago, was first presented to the Proctologica Latina Collegium, Tangier, Morocco, in May of this year.

An occupational hazard of the intestinal tract is the injudicious use of laxatives. Proctologists all over the world, I am sure, will agree with this statement. They will probably add that, as a class of medicinal substances, the cathartic is used more extensively and is less controlled than any other item in the pharmacopeia. Indeed, the use of cathartics is often irrational and frequently dangerous. A consideration of these facts, which are apparent to all physicians will, I am certain, stimulate thought regarding the philosophy and practice of purgation.

Meditation of this sort was in my mind when I visited Belgium in 1920 as a physician with the American Olympic Team. There I became acquainted with "les grains de longue vie." Although any substance with such a name would be intriguing, these "seeds of long life" were especially interesting to me as a proctologist, since they purported to exert their beneficient influence by a unique action in the bowels. This prompted me to embark on a detailed study of the botanical and pharmacological properties of the *Plantago psyllium* and its clinical application.

Botanically, the seeds are known as *Plantago psyllium*. In the United States up until 1920, they had not been used for their medical properties, though strangely enough, under the name of "flea seed," they were extensively used in the fur trade for glazing furs. These seeds owe their pharmacologic value to the fact that, when ingested with water, they exude a substance which is highly hydrophilic and which greatly increases the bulk of the intestinal content. To some extent, they also facilitate passage of the fecal mass because of the lubricant qualities of the mucilaginous substance they exude. This combination of properties makes them valuable as a laxative, because intestinal peristalsis is stimulated by the increased bulk of smooth substance.

Further study showed that psyllium seeds depend on no irritant or hydrogogue effect to produce laxation. They do not disturb either the mineral balance or the water balance of the body. Moreover, they contain no harmful substances that, on absorption, could poison the body. They do not interfere with digestion nor do they abstract any nutritious elements from the food canal. They contain no absorbable active principal that affects the function of any other organ or group of organs. Finally, psyllium seeds contain no habit-forming substance.

The same cannot be said for various cathartics such as senna, aloe, and cascara, which cause potassium loss, or for phenophthalin, which may cause a skin rash in some cases upon absorption, or for mineral oil, which interferes with carotene absorption. Nor do psyllium seeds produce staining of the colon as do many of the anthraquinone compounds. Still further, the use of psyllium is accompanied by no cramping, no severe intestinal irritation, nor any of the toxic effects observed when irritant botanical

cathartics such as jalap, colocynth, podophyllum or castor oil are used.

Assured that the substance had no apparent potential for harm, I proceeded to use psyllium seed in teaspoonful doses mixed with a glass of water in treatment of simple nonobstructive cases of habitual constipation. Later, I abandoned the seed in favor of the granules or flakes of the mucilloid psyllium exudate. The results were gratifying; numerous colleagues have added their satisfying experiences to mine. Today psyllium-processed derivatives have a recognized place in the treatment of simple unobstructed habitual constipation. Medical literature on the subject will vouch for this statement.

Clinical experience however—not only that of my own but that of the entire profession—soon disclosed that the use of psyllium seeds had its defects as well as its virtues. The recognition of this fact led to certain modifications, which at the present time have largely eliminated the unfavorable factors and greatly accentuated the favorable ones.

To state in greater detail these deficiencies and the modifications they led to: The efficacy of psyllium seeds as a laxative depends upon the ingestion of a sufficient amount of water, that is, a quantity sufficient to wet *each* seed thoroughly. Here was the oportunity for the first fall from grace. Some patients, either from haste, indifference to instructions or to doctors orders, merely gulped the tablespoonful of seeds with just enough water to wash them down the gullet. The inadequate supply of water merely succeeded in causing the surface layer of seeds to exude the mucilaginous substance characteristic of psyllium. This then spread over the surface of the mass of psyllium seeds as it proceeded along the alimentary tract, virtually as a foreign object. Since the use of psyllium was advocated one or more times a day, it did not take long, under the circumstances stated, for the foreign objects, that is, masses of psyllium seed, to constitute a serious obstruction, an impaction. This, of course, was a condition worse than the constipation it sought to cure.

I regard it as rare in the annals of medical history that one who has introduced a medical agent should have the opportunity of so long a period in which to observe its development and to witness the almost universal extent to which it has found use in the daily practice of medicine. This is a source of great satisfaction to me. A still greater source of satisfaction is the fact that, in the 40 years during which these preparations have been used, there has been no instance of harmful effects where they have been correctly used.

I feel this presentation is of particular importance to proctologists, since the colon and rectum are the organs that suffer far more than any others the damage done by cathartics. The modern attitude of our profession is to exert effort in preventing disease rather than merely to deal with the disease when it has developed. By using and advocating medical substances such as psyllium, we will certainly be eliminating the constant toll of colonic and rectal disorders incident to the use of cathartics.

As a response to the discovery of the defect, some pharmaceutical manufacturers offered a combination of mineral oil and psyllium seed jelly rather than just the seeds themselves. Such an arrangement appeared ideal from a theoretical standpoint; in prac-

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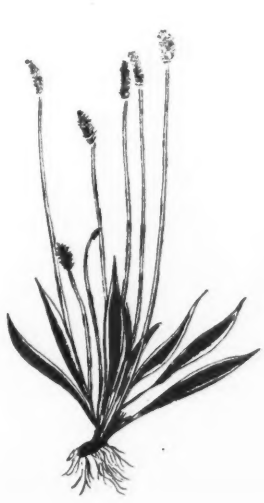


USES OF QUATERNARY AMMONIUM

BY HARRY HILFER

Quaternary Ammonium Compounds have been in fairly extensive use in cosmetic formulations, for a long enough period of time so that their properties may be examined against a background of their use. With the passage of ten to 15 years of their usage, I think it would be possible to determine which of the classifications of products, in which they are incorporated, have shown a market response because of their use. This article is an attempt to point this out.

From a cosmetic standpoint, the quaternaries are divided roughly into two classes, bacteriostatic compounds, and use in hair preparations to make the hair more manageable after a permanent wave or a shampoo. A third classsification, covering the two mentioned, is their use as emulsifying agents. It is important to remember that the quaternaries may be represented by a large number of different types of compounds, the only thing binding them together in this group is the inclusion of a quaternary nitrogen group in the molecule. It is therefore somewhat difficult to judge the entire classification by the physical properties, particularly the irrational properties by one or two members of the group. There are, however, some generalized observations that could be made concerning their physical properties as against their molecular weight.

In general, the quaternaries containing the lauryl or lauroyl group are possessed of the greatest bacteriostatic properties. The phenol coefficients shown by these compounds may vary from compound to compound but certainly their bacteriostatic activity is greater than the corresponding compound containing a stearyl or stearoyl group instead. Within the lauryl or lauroyl quaternary ammonium compounds, there is also a wide devergency in irritational properties from quaternary to quaternary. Sometimes those compounds showing the greatest bacteriostatic effects may have to be used in minimal concentrations to avoid irritation.

We now enter into another consideration in the proper choice for an indicated purpose. Phenol coefficient tests run under ideal laboratory conditions may not allow for possible incompatible substances

COMPOUNDS IN COSMETICS

which may be present in the field of application. Among other uncompatabilities they may encounter are residual soap films—which react with quaternaries to produce a complex, which does not possess any of the desired properties expected. A sufficiently large concentration must therefore be incorporated into the preparation to assure an excess large enough after reaction with incompatible substances to have the expected bacteriostatic properties. The incompatible materials in the field however will vary from individual to individual and from use to use. For example in an after shave lotion, the quaternary will be expected to function properly with men who do not rinse the residual shave cream from their faces before application of the after shaving preparation as well as for those who do. The men who rinse will therefore possibly be exposed to a concentration of quaternary large enough to cause irritation. An obvious choice would therefore be a quaternary with a lower irritational threshold, where a larger concentration could be used. The tendency has therefore been toward the use of the less irritating members of the series, even if the phenol coefficient is lower, since a larger concentration is still within the cost limitations set by the manufacturer.

An alternative method has been the use of a larger molecular weight quaternary (such as the stearyl or stearoyl derivatives), which as a class have lower irritational properties in conjunction with a relatively small concentration of the bacteriostatic quaternary. In this application the larger molecule will preferentially react with the incompatible substance—since the end product is expected to be more insoluble, leaving the lower moleculer weight bacteriostatic agent free to perform its function. This latter method is finding an increasing number of adherents.

The larger molecular weight compounds, principally those containing stearyl or stearoyl grouping are a more substantial part of the cosmetic picture. Their bacteriostatic properties are greatly reduced, though some of their members do show some activity, but with their substantive properties much greater—presumably because of their lower solubility—due to a greater hydrophobic content. Their primary use is in the so-called cream hair rinse. As are most quaternaries, they are markedly substantive to proteins, and when the hair is rinsed with them at an acid *p*H, they coat the hair shaft. In so doing they impart greater luboricity to the hair and further remove the static change so that the tendency of the individual hair strands to repel each other is obviated. This, therefore makes the hair easier to comb and to manage generally. Here again, there are noticable differences from compound to compound within the same general grouping, evidenced by a greater antistatic effect and by a greater lubricity or smoothness imparted to the hair. This type of product has been a boon to women who have permanent waves, since the time consuming combing and grooming after the

(Continued on page 521)

HAIR COLORING AND BLEACHING

BY ROBERT L. GOLDEMBERG
DIRECTOR, TOILETRIES RESEARCH, SHULTON, INC.

This discussion of general factors in coloring and bleaching hair is based upon the lecture on the subject given by the author as part of the course on "Fundamentals of Cosmetic Chemistry" at the Columbia University College of Pharmacy.

The enormous expansion in recent years of the hair coloring (and bleaching) market has been shared by the temporary, semi-permanent and permanent type products. The general composition of these products is discussed, along with a few observations primarily of historical value on metallic and vegetable dyeing preparations.

Temporary Rinses

Temporary hair colorings have been used for thousands of years. In the beginning, they merely consisted of various colored pigments. The use of powdered wigs, for example, remained in style until about 150 years ago. The ancients also used the juice of various berries and roots to tint the hair slightly.

Within the last 50 years, the use of acid dyes in strongly acid solutions became common. Such products are still sold today in huge quantities. About one per cent of dye is blended with citric or tartaric acids, packaged in acetate capsules, and sold for five to 25 cents per capsule by the million each year. They are cheap, simple to manufacture, rarely subject to breakage, are nontoxic, nonirritating and simple to use. Each capsule is simply dissolved in a glass of water and the solution poured through the hair several times until the dye exhausts from it onto the hair. If the customer feels like playing chemist, she can put two capsules in the glass of water to increase the effect, or she can mix a few shades together to get a custom job, or she can try adding it to her shampoo and then wonder why she got a precipitate.

These simple rinses have certain disadvantages: although the acid dissolves away lime soap films on her hair (thus giving it a nice sheen), and although it greatly increases the amount of color exhaustion onto the hair, it makes the dyes "unlevel." This is a textile term meaning that they take on the hair so quickly that the resulting dyeing is sometimes uneven. Gen-

(*Continued on page 524*)

COURTESY HELENA RUBINSTEIN

All photos courtesy Morningstar-Paisley, Inc.

Vanilla Flower or *Orchid Mexico*

VANILLA AND MADAGASCAR

BY HARRY KELBLY

The Malagasy Republic, consisting mainly of Madagascar, is the world's fourth largest island, and the leading producer of vanilla beans.

Its 5.3 million people don't consider themselves any part of the neighboring African continent although the island has been swept along with Africa's nationalist tide, becoming an independent republic in the French Community last year, formerly having been a French colony.

The government of Malagasy is pro-Western. Its present policy is progressive with a sincere desire to raise the standard of living of the island. To achieve this objective, bulk products of relatively minor value have been subordinated, while those of partially processed commodities such as peanuts, vanilla, tobacco and cloves have been increasing.

Raw coffee is the leading export item. Vanilla, the second-ranking export commodity, accounted for sales of about $7,000,000 in 1960. Production for 1960 was approximately 700 tons, compared with an annual average of 400 tons in recent years.

In an endeavor to control the possible effects of this increased production the government has instituted an export tax and the establishment of minimum export prices. Wide fluctuation in vanilla prices has always been characteristic of this market, but it is obvious now that stabilization of prices is another government objective.

This policy is neither favored by exporters or by American importers who would prefer a free trading market. According to reports from dealers, the Malagassay government has temporarily suspended the issuance of new export licenses, caused by the discovery that some exporters were charging less than the official price for beans.

(*Continued on page 550*)

Even the children go to work during the curing season.

Sorting the vanilla beans.

BONUS PACKAGING

BY JERRY THORNTON

A lace-imprinted utility container holds six bars of Maja hand and bath soaps by Myrurgia. Authentic Spanish doll adds sales appeal.

The advantages and disadvantages of adding extras to your product's package.

What are the advantages and disadvantages of secondary use containers and packages? How does bonus packaging affect the consumer, and what markets are most influenced by this merchandising incentive?

Many industries have sought to entice the buyer with *have-your-cake-and-eat-it-too* promotion and packaging ideas. Premiums and containers with secondary uses have been widely used to give the consumer an incentive to buy, over and above a need for the product and its inherent quality. Items have been packaged in vases, apothecary jars, jewelry boxes and a variety of containers, in order to give her something extra for her money.

The point of sale influence of these packages is very great. Moreover, the consumer likes to think she is getting something for nothing, and the consideration of a secondary use for an elegant container often turns a looker into a buyer. The attractiveness of a package with a secondary use also gives plainer items, pushed hardest during gift-giving seasons, a certain elegance. Bath products have met with a great deal of success because of original and attractive secondary use containers.

Lacy plastic purse by Mem Company, Inc., holds bubble bath for little girls and has a detachable silk hair ribbon mounted on a bobby pin.

Mem Company's sculptured rose soap comes in a white opal hobnail bowl that has an after-use as a finger bowl, nut bowl or candy dish.

Normally, if this incentive were not present, the consumer would hesitate to spend as much for an item. In this way the manufacturer is able to package his item as attractively as possible without discouraging the economy-minded woman. Also, displays of items packaged in secondary use containers seem to stand out on the retail counter.

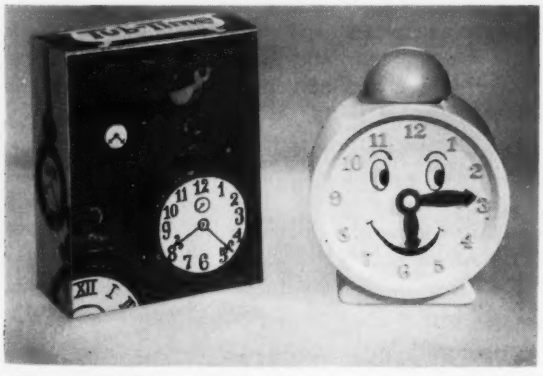
Once the consumer becomes acquainted with the secondary use of a container, she will often continue to buy the product, for the container, in order to add

White Shoulders, Great Lady, and Most Precious fragrances by Evyan are packaged in a satin-lined box of polished golden metal. The Keep Forever box could be used for jewelry or other accessories.

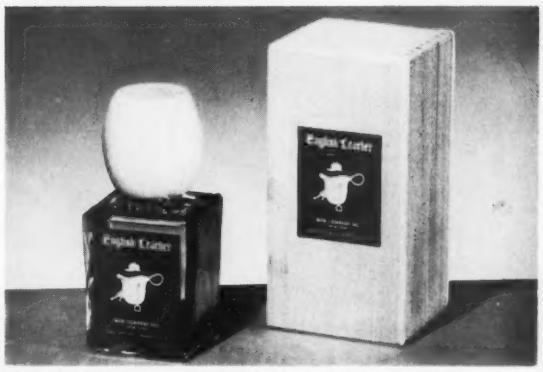
to her collection of containers or novelties. Also, these containers are a constant reminder of the product they once held—therefore, the most subtle method of selling in the home.

In many cases a close relationship exists between the product and the package. Containers and packages of wood and straw and those in the shape of liquor bottles and stud boxes have strong masculine appeal. Containers and packages of velvet and lace and those in the shape of sewing boxes and jewelry boxes have a distinct feminine quality to them. Seasonal designs as well as designs that appeal to children have all proved successful. Toys and dolls have been added to packages for added sales appeal.

There are, of course, disadvantages to bonus packaging. The cost of the item and the elegance of the package tend to set a seasonal limit on the product.



Li'l Folks Time by Avon Products, Inc., is a clock with movable hands filled with liquid bubble bath, that functions as a bank when empty.



English Leather all purpose lotion by Mem Company, Inc., comes in a redwood box that has an after-use as a stud box or utility container.

People hesitate to buy packages for personal use that are normally presented as gifts. Moreover, suitable utility containers as well as toys and novelties are not too expensive, and people have become less thrifty because of the abundance and low prices brought about by mass production.

The consumer often places exaggerated value on the cost of a package, considering it to contribute substantially to the over-all cost. Consequently, if she has all the containers she wants, she won't want to pay for another one, and will look for a better buy. For this reason, secondary use containers for children are most successful, since new toys are always welcome.

Despite the disadvantages of secondary use containers, the search for extra value will never end, and containers with secondary uses will continue to be popular. For this reason, the potential of bonus packaging in terms of the growing drug and cosmetic markets is very great.

Bubble bath container by Allen B. Wrisley Company is a flint glass vase, decorated with a gold star burst design, suitable for cut flowers.

DECISION AT POINT OF SALE

BY PETER VAUTIN

How close do advertising and marketing practices come to meeting the complex of emotions that appear at the point of sale?

Why do people buy? What makes a woman open her pocketbook, take out the cash and become the proud owner of a new perfume, a new lipstick, a new cream?

It would be easy to be facetious and say: "Because they want it," or: "Because they have the money." Both of these reasons are true. Normally, you buy something because you want it and because you can afford it.

The question intriguing researchers recently is why women buy a certain product at the particular time they buy it. And in particular, why do women choose one brand over another at the time of purchase?

Psychologists, consumer survey experts, have found a complex compound of human emotions, human impressions and impulses as the answer. Motivation studies have come up with similar findings. Even though the impulses and motives which influence and result in a purchase are complex and numerous, they can be classified, studied and used in the practical planning of advertising, sales management and sales promotion.

The primary influences governing a purchase are: Word of mouth recommendation, trial use, store influence, advertising, reputation of the manufacturer, price and package.

The psychologists and motivation investigators have given a percentage valuation to each of these classifications. Even though these studies have been made under different conditions—interviews by trained psychologists, interviews in homes by trained investigators, interviews in stores immediately following a purchase—there is reasonable agreement on the value of each of these classifications in influencing a purchase.

Variations are caused by the nature of the product, and the age and income of the buyer (low income buyers are heavily motivated by a friend's recommendation, and advertising).

These variations have an obvious direct influence on media purchase, slant in advertising, type of distribution favored and in sales promotion. Most manufacturers, either by instinct or knowledge, recognize these factors in their sales and advertising planning.

What is not too well recognized or applied in sales management is the relative values of these different basic influences.

For instance, let's take the most thorough and comprehensive of these studies and note the general, overall average per cent of value given to each buying influence.

Influences	Per Cent
1. Word of mouth recommendations	32.1
2. Trial use.	9.3
3. Store influences, such as sales clerk, display	17.2
4. Advertising	21.1
5. Reputation of manufacturer	6.4
6. Price	8.3
7. Package	3.6
8. Miscellaneous	2.0

(Continued on page 520)

Packaging and Selling

Custom Fragrance Corporation, a new firm with a new method of perfume selection, is introducing eight new fragrances in the tapered bottle shown. The bottle has a flared gold-finished cap-applicator and is packaged in an elegant white and gold set-up box, containing a tiny white funnel for refilling the purse flacon (not shown).

Gustav Carsch, president, and creator of the new perfumes, has developed a unique method of providing a woman with her own custom fragrance, by means of charting her personality traits, temperament and dress style into a "Personal Profile." Corresponding perfume to fit the individual personality is then selected.

so elegant

REGENCY

Bottles by RICHFORD

Once in a great while a design comes along that is so perfect in concept and execution, so felicitious in shape and proportion that it becomes a classic at birth.

So it is with the new Richford Series, REGENCY.

As the illustrations so clearly show, Regency bottles look well with any of the exclusive Richford custom-engineered closures. They come with standard neck finishes in ½, 1, 2, and 3 ounce sizes and with Spillproof finishes in ½ and 1 ounce sizes.

Be among the first to develope your own exclusive packaging line with Regency. Write today for samples and catalog of the full Richford Line.

Ideal for Nail Polish — ½-oz. size

RICHFORD CORPORATION

Showrooms:
Empire State Building
350 5th Ave., N. Y., N. Y.

Offices and Plant:
3618 Oceanside Road
Oceanside, N. Y.

"Your Product Deserves Richford"

Modern Cobo Hall, sight of 1961 Packaging Machinery Manufacturers show.

PMMI PREVIEW

We have briefly previewed the Packaging Machinery Manufacturer's Show, to be held next month in Detroit. Our December issue will carry a report on the show.

The 1961 Packaging Machinery Manufacturers Institute Show in Detroit's Cobo Hall, November 7-10, will present the products of 220 exhibiting firms, consisting of packaging machinery and closely related packaging materials. Forums and workshops covering records, communications, maintenance, materials and other packaging considerations will be conducted, to aid the manufacturer in evaluating his present packaging and in planning new packaging.

A partial list of exhibitors and their products follows. We have tried to choose those companies most important to our industry.

American Sterilizer Company will exhibit a new small size ethylene oxide Can-O-Gas sterilizer, with single or double doors, that features a disposable can of Cry-Oxcide gas, for sterilizing any small item sensitive to heat and moisture; a combination gas-steam sterilizer with automatic dual controls and chamber sizes from 24 by 24 by 36 inches to 60 by 66 by 120 inches, for processing bulk quantities of heat and moisture sensitive materials or sterilization by conventional pressure steam; a flexible film dry box that features a transparent polyvinyl chloride collapsible and disposable canopy and complete supply line openings; a one-gallon laboratory water still; and Spordex bacterial spore test strips, for determining sterilization efficiency, that are seeded with bacterial spores of established heat resistance and known population.

Arenco Machine Company will present the Arenco Gan tube filler, with tube feed, tube registration and tube cleaning; the Alite A. T. 5 powder filling and compressing machine with a self-contained hydraulic system; and the Alite LF powder filling machine that fills powders and granulars from ¼ ounces to 3 pounds.

American Viscose Corporation will show Avisco films and strapping suited as components in combination packaging materials, including film laminations, extrusion-coated cellophanes and Avistrap cord strapping.

AviSun Corporation will display Olefane polypropylene film and a complete line of other polypropylene films and resins.

(Continued on page 512)

PHOTOGRAPHY BY DICK BOYER

BERNARDIN closures keep good company!

Generations of product quality have made the brand name Heinz on any food a classic synonym for consumer franchise. Naturally, this priceless asset is protected in every step from farm field to family table. Some of those steps are of necessity shared with other qualified suppliers whose products (like closures, for example) under test have proved their complete dependability. That is why our closure is a part of this picture. *May our Closure Craftsmen work with you?*

SINCE 1881 · BERNARDIN BOTTLE CAP COMPANY, INC., EVANSVILLE, INDIANA

PRACTICAL PACKAGING

BY JERRY THORNTON

Successful marketing of cosmetics and drugs depends on the quality of the product and the attractiveness of the package. But how important is the actual design of the package? How much does size, shape, durability, labeling and ease of opening and closing influence the consumer's decision to buy?

According to a consumer level packaging study by Chicago Printed String Company, men design most of the packages and containers in the United States, but women open about 68 per cent of them. In the past, the American woman was not given due consideration by package designers, but now that she has become a power in the market place, more and more designers are trying to determine her likes and dislikes.

Price, past experience, recommendations and advertising are important in determining a sale, but none of these can overcome, in a woman's eyes, the disadvantages of a poorly designed package. The package or container *physically* represents the product and the manufacturer. Since women have a greater respect for their own judgement and the opinions of their friends than they do for the manufacturer's claims, they won't buy a package that has proven inconvenient and impractical to use in the past. Women, more than men, judge the manufacturer's progressiveness, imagination and leadership in his field by his product and package. Everything from nails to soap is packaged today and a good product will not sell without a good package. The days of the cracker barrel merchandising are over.

Practical packaging considerations have the strongest influence on the sale of products that are similar. Packages that are difficult to open or close and containers that have impractical or faulty closures have been driven off the shelves of retail stores by better designed competing brands. Pull-tabs and zip-tapes as well as other time and labor saving devices are becoming essential to the life of a product.

Then what does a woman want in a package? The survey showed the following to be her most important considerations.

Ease of storage. She wants a container or package that can be easily stored. If the package or container has to be laid on its side in her medicine cabinet or is an awkward size or shape she will reject it and choose a more conveniently packaged brand. Also, the more sizes she has to choose from, the better are the chances of pleasing her.

Ease of opening and closing. Packages that are difficult to open and require the use of knives and other tools are not at the head of her shopping list. Toothbrushes, sealed in plastic or glass tubes that do not have pull-tabs for easy opening, can be dangerous. Stapled and glued packages are hard on her hands and manicure. Workable spouts, that do not fall inside the package or become shapeless, are the preferred method of dispensing dry products that must be kept in the package or container during use.

Durability. Packages that become bent and unattractive while being used are unpopular. The homemaker feels strongly about her role as decorator, and any unattractive item, whether in the middle of the living room or on shelves, she feels reflects her decorating abilities.

Stability. Containers and packages that tip over easily won't remain in the home for long. One experience with a poorly designed container that continually tips over is usually enough.

Color. Colors are important to the development of

a package that immediately attracts the customer's eye. Packages are brought to life, are distinguished from the ones that crowd them on the shelves, by the use of original and distinctive colors.

However, the consumer identifies a product by its color, and though changes in design and color are often necessary, they can make identification difficult.

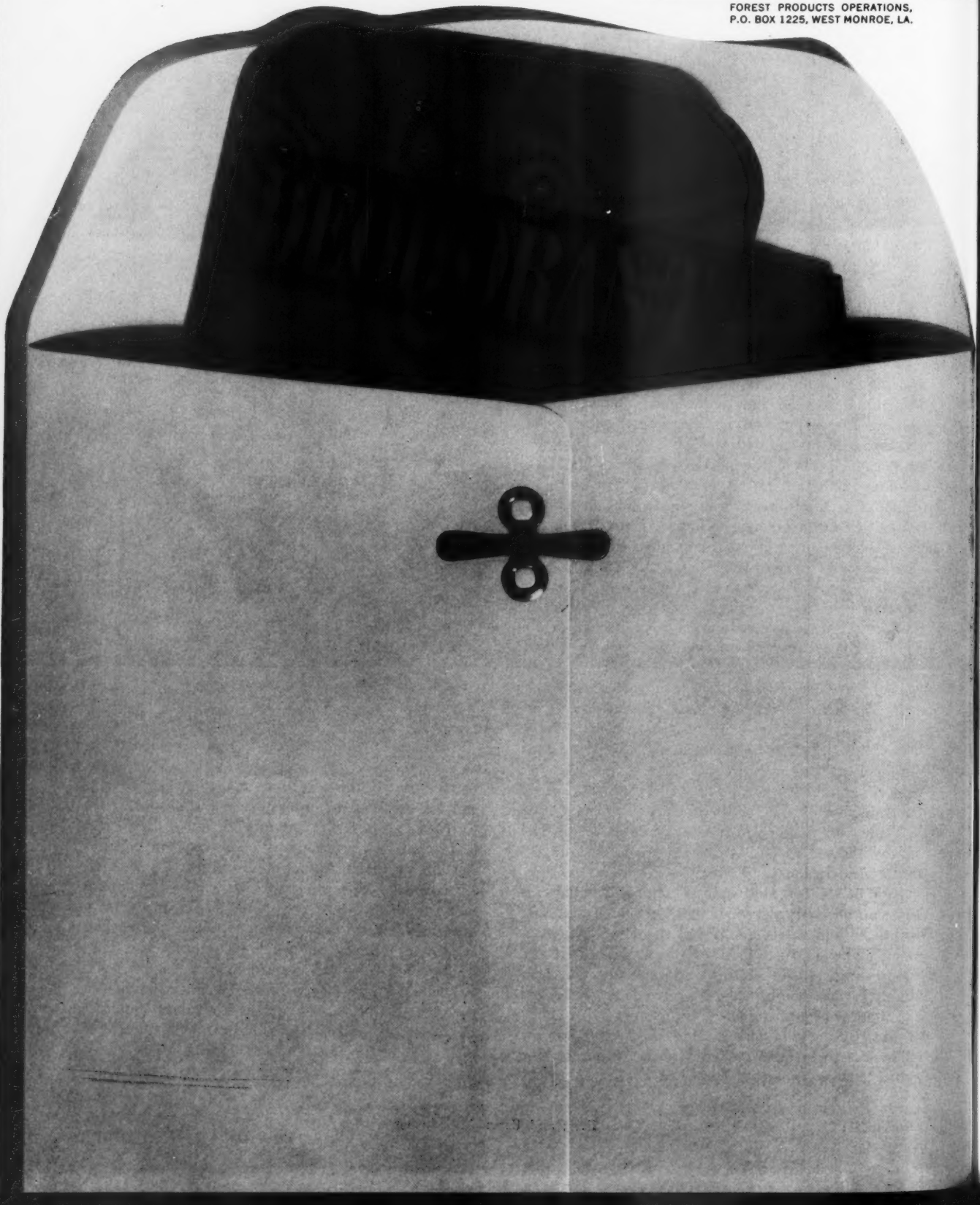
Labeling. If the consumer has to read directions and follow them in order to use the product effectively or to protect the contents for re-use, these directions should be prominently displayed, and not hidden among the manufacturer's billboard type of advertisements. The consumer will blame the manufacturer for any poor results of her improper use of the product. Directions contained within the package as well as on the outside would be helpful.

The consumer expects product and package improvements; newness is taken for granted. She expects the manufacturer to give her quality products in containers and packages that are attractive, practical and easy to use. This is the price the manufacturer must pay for continued patronage. •

Send us your carton (even if you love it). If we can't beat it on design, printing and strength, at no increase in cost, our name isn't **Olin**

PACKAGING DIVISION

FOREST PRODUCTS OPERATIONS,
P.O. BOX 1225, WEST MONROE, LA.



The Risdon Manufacturing Company has developed a system that makes aerosol packaging of anti-perspirants possible.

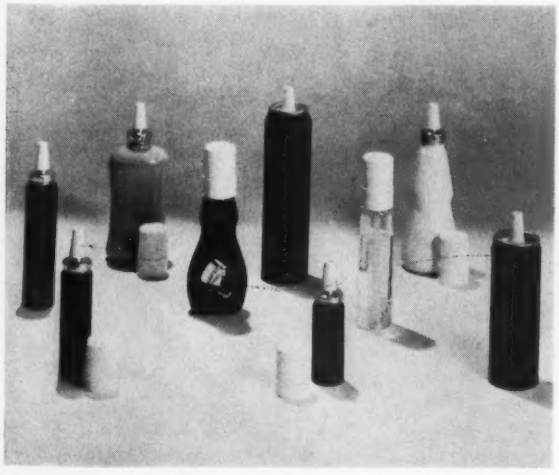
AEROSOL PACKAGING OF ANTI-PERSPIRANTS

Successful packaging of anti-perspirants in aerosol containers is now possible with the new Risdon Manufacturing Company system. In the past, whenever an anti-perspirant has been tried in an aerosol package, the aluminum salts vital to virtually all anti-perspirants have crystallized, and clogged the aerosol valve.

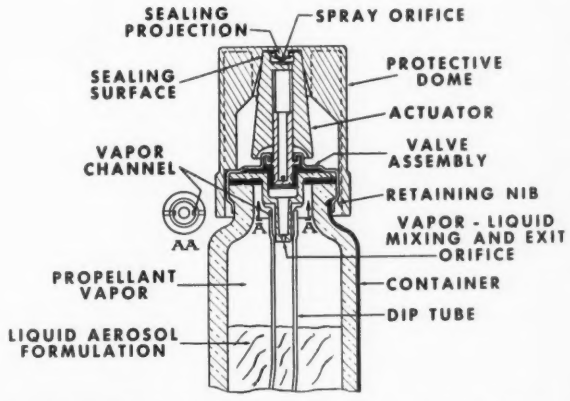
Risdon investigators, led by Walter C. Beard, Jr., research director, have developed a non-metallic valve, and a self-sealing cap which acts as a "cork" for the aerosol package between uses, thereby minimizing clogging due to drying out of aluminum salts. Features of this are covered by patents and patents pending.

The valve and closure have been designed for use with all containers—glass, aluminum, stainless steel, plastic—having openings 20 mm. or one inch in diameter. Metal containers for aluminum salt based formulations would have to be protected against corrosion to insure satisfactory performance.

The new "Seal Dome" closure creates a double seal to prevent the aluminum salts from drying up and clogging the valve and actuator. From the outside, the ribbed, plastic cap looks like any other. The inside, however, is specially constructed to provide the sealing action. The cap's interior is tapered to seal against the sides of the vertical toggle-type "Micro-Mist" mechanical breakup actuator. It has a projection at the top which fits into the terminal orifice of the actuator and seals it from the air. It also has ribs along the inner sides of the can, which create a snap fit and cause it to grip the valve cup. The combined action of the cap's interior features creates a "cork action" which prevents air from reaching the actuator's orifice when the package is not in use.



Vapor Mix valve and Seal Dome closure can be used with glass, aluminum, stainless steel and plastic containers that have openings of 1-inch.



Drawing illustrates the new nonmetallic valve and self-sealing cap designed by Risdon for the aerosol packaging of anti-perspirants.

Since the actuator is the toggle-type which can only be actuated by pressing the side, it cannot be moved accidentally when the cap is put into place.

The "Vapor Mix" valve has no metal parts, eliminating the possibility of valve corrosion. Its unique design not only produces a spray that is superior to that of other non-metallic valves, but it also reduces the "chill" that is sometimes associated with aerosols.

The valve has two tiny channels on either side of the nylon valve cup that fits into the dip tube. These channels also allow a minute supplementary amount of propellant to enter the dip tube at the top. When the actuator is pressed, this added propellant in vapor form mixes with the liquefied solution of product and propellant that is forced up through the dip tube in

(*Continued on page 514*)

Take your

...r sales UP with Aerosols!

...and take up aerosols with GENERAL CHEMICAL!

Can aerosols add the magic touch of increased sales to your products? General Chemical can help you find out.

Prospective aerosol marketers discover that General Chemical has all the latest technical and marketing information they need, ready and waiting.

For example, we can show you scores of promising aerosol formulations —some typical, some developed in our laboratories . . . all containing *safe* "Genetron" propellants. We have extensive, detailed data on a host of aerosol markets, which we'd like to share with you in a fact-filled *personalized presentation* at your office or plant.

We can also put you in touch with experienced contract fillers who can help make your move into aerosols easy, with no investment on your part in plant or personnel.

To take us up on our offer to help, write: "Genetron" Dept., General Chemical Division, Allied Chemical Corporation, 40 Rector Street, New York 6, N.Y.

genetron®
aerosol propellants
Putting the "push"
in America's finest aerosols

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N.Y.

Packaging and Selling

The Jewel Tea Company has been in and out of the cosmetic industry with a number of ventures. Now they seem to be on a straight path of development with the Jewel Tea supermarkets.

Last year Jewel Tea acquired the 30-unit self-service Osco Drug chain. What may be the future cosmetic development of this leading chain is now being displayed in the supermarket on West Diversey Parkway in Chicago. The drug unit here shares a common entrance with the Jewel Tea supermarket. A trained cosmetician, and an assistant, guide the customer in selection of products from a 72 feet long beauty bar.

The beauty bar is divided into sections for nail polish, deodorants, hair color, hair dressing, shave lotion, and so forth, with a mirrored chest of perfume displays in the center. Perfumes carry a range in price from $3.50 to $20.00. One aisle, to the right of the bar, is devoted to "special values," with prices that look very much to us like a cosmetic discount operation prices.

A new patented process for vacuum-metalizing polyethylene squeeze bottles and rigid polypropylene containers should be interesting to this trade. It is said that this new metalized coating not only gives particularly beautiful exterior appearance, but substantially reduces permeability of the container. Licensing arrangements are being made.

In a striking trade advertisement Charles of the Ritz uses a white page with 9½ x 15 inches—almost the entire page—blank.

The copy under this white space read: "This space in cosmetic departments produces $168 in annual sales. This same space produced $1,038 in the Charles of the Ritz department of Meyer-Arnold in Greenville, N. C. Are you getting the most out of every square inch of your Charles of the Ritz space?"

Department store economics usually calls for sales per square foot. When you get down to sales per square inch and mention $1,000 or more, this seems to us like really going placess.

According to Richard W. Stephan, president of the Stephan Company, Ft. Lauderdale, Fla., 900 million male visits are made yearly to the nation's 150,000 barber shops.

Stephan distributes solely to barber shops, and has worked hard to build up a customer loyalty to barbers.

In June, of this year, a complete line of men's grooming aids was introduced to the barber shop in self-service display racks. Mr. Stephan reports that the results have been so satisfactory that the firm had placed 50,000 such racks in barber shops by September 1.

According to Mr. Stephan, "Barber shops are the last remaining outlets that have not been oversold and overstocked by manufacturers."

A number of new products will be introduced this year including a new type of men's hair dressing, shaving cream in both aerosol containers and tubes and a temporary hair color for men.

A facial mask is being tested.

New proof that women used make-up nearly 2,000 years ago has just been uncovered by archeologists. In excavating around a mosque in the central Syrian city of Homs a 1,900-year-old Roman family tomb was discovered.

In one tomb, that of a woman, were four ivory boxes, one containing white face powder, another eye shade sticks, the third a selection of perfumes and the fourth, ivory hair pins.

Even 2,000 years ago make-up was a well developed art of ancient civilization.

The P.M. is attracting new interest from the Internal Revenue Service. This is not entirely new, nor does it mean that anything unusual has been taking place. However, the Internal Revenue Service is said to have a case history of one manufacturer who paid over $2 million in a single year to more than 15,000 individuals in retail stores as push money or selling incentives.

Manufacturers who pay more than $600 to any retail employee in the form of cash incentives are required by law to fill out an "information return" for the Federal Government.

When push money is in the open and in agreement with the retail store, this information return has ordinarily been made and retail stores have been withholding federal income tax on such payments. But some push money has been moving through underground channels—and has certainly been avoiding the tax man.

According to reports, the Internal Revenue people are not overly excited and do not believe that enough taxable income is leaking away to begin a major crackdown.

In a Senate subcommittee hearing on fair trade, Representative Alger of Texas certainly put his opposition to fair trade on the line.

"Fair trade would increase the cost of living," said

Mr. Alger.

"It would be contrary to present anti-trust laws and 'of doubtful constitutionality.'

"Businessmen could find means of getting around it.

"Large retail chains still would be able to sell private brand merchandise for lower prices than national brands sold by small retailers.

"It would be an umbrella for the large manufacturers held up at the expense of small business."

On the other hand, Senators Proxmire and Humphrey make a case that arouses some sympathetic understanding of an increasing problem for the small independent businessmen. According to these Senators, the small businessmen today are the prime victims of recessions, discount houses and catalog merchandising.

The questions seems to be, are we going to treat all of the hundreds of thousands of small businessmen in America in the same way we now treat the farmer—that is, through a subsidy paid for by the public—or are we going to open the way for modern efficiency, mechanization, automation and mass operations to reduce the costs of our current rather expensive system of distribution?

The Spiegel Prescription Drug Foundation leaves us cold. According to Mr. Spiegel, "This prescription drug service will be provided as an added good-will benefit for the users of the budget power plan charge accounts."

In our book this is a business venture, a promotion plan along the same lines as premium offers and supermarket stamps. A few years ago this same huge mail order company offered its charge account customers free life insurance, and the drug prescription plan is an undoubted successor to that successful promotional give-away.

According to reports, a catalog flier sent to charge customers estimated a saving of 25 to 40 per cent on every prescription filled by Spiegel by mail.

Meanwhile, one of the big grocery chains, a branch of the Natioinal Tea Co., is experimenting with leased prescription departments in three of its stores. A member of Prescription Clubs, Inc., who pays $1.50 annually and a first-year fee of $6.50, is entitled to a 30 per cent discount on prescriptions. A nonmember, who does not pay the fee, gets a discount of 20 per cent.

Providing the experiment is successful, the National Tea Co. with more than 900 stores expects to expand it.

These are only two of the several fairly recent developments that are upsetting the price structure of the prescription business.

As in cosmetics, where a wide margin available to supermarkets and discount houses has been upsetting the entire price structure and bringing much new competition into distribution, it also seems to be happening in the drug industry.

The question that seems to be coming to the fore might be: What does it profit a buisnessman, if, by setting a high margin to permit extravagant methods in distribution, he invites destructive competition?

Paper and boxboard now offer many opportunities for creative packaging development, through new surface treatments and so-called marriages among plastics, films and foils.

According to a recent speaker, "Far from losing ground to other materials, paper, boxboard and corrugated board are actually gaining and entering new areas themselves." In addition to combinations with plastics in laminates, blisters, skin packaging and the like, paper and board are being subjected to many new surface treatments. These additives bring special new characteristics without sacrificing the packaging qualities in which paper excels, such as flexibility and printing surface.

Surface treatments with resins, paraffins and many other materials can make paper more resistant to abrasion, scuffing, moisture penetration, odor penetration and soiling.

The department stores, or at least quite a few of them, have been flirting with discount operation and self-service, in addition to their business expansion into shopping centers and suburbs. Now we hear that some are interested in house-to-house selling.

The White Shield Corp., a New York distributor, is said to be working with a group of department stores to launch a house-to-house selling campaign of White Shield products, which include health and beauty products, in addition to notions and gifts.

We are not going to make any prophecies on this development. True, some people are already combining a retail operation and a house-to-house operation, notably the Jewel Tea Co., which combines supermarkets, drugstores and a house-to-house home route division. These are separate operations, however, rather than an extension of retailing.

When Lever Brothers owned Harriet Hubbard Ayer, the company made a substantial tryout of selling house-to-house through a department store. We recall Buffalo as one of the areas.

This was a flop, partly because the department store was asked to contribute 50 per cent of its markup, and partly because the department store simply did not understand and could not follow through on this hazardous and intricate method of selling.

Both the drug and cosmetic industries have been piling up an endless series of distribution costs that in some ways are really frightening. Take, for instance, the cosmetic company experimenting with a factory demonstrator in a self-service supermarket.

Just when the discount operation is introducing a new and rather devastating element in distribution cost—and is discovering a tremendous consumer response to price—it seems odd for some people to expect to move in the opposite direction. •

Featherweight cosmetic jars that won't break

Drop these cosmetic jars on a tile floor. They won't break or shatter because they're made of a rigid foam plastic—DYLITE® expandable polystyrene. They won't crack, chip, or flake; they're unaffected by most chemicals, oils, and creams. DYLITE jars weigh one-tenth as much as glass containers—they save in shipping costs. Their surface is smooth and colorful and each jar has a special molded lip which eliminates cap liners. Because DYLITE molds easier it costs less. Can you improve your jar design with only a small investment?

Learn how you can have better containers at less cost with DYLITE expandable polystyrene. Write Koppers Company, Inc., Plastics Division, Dept. 1524, Pittsburgh 19, Pennsylvania.

DYLENE® polystyrene, SUPER DYLAN® high-density polyethylene, and DYLAN® polyethylene are other fine plastics made by Koppers.

KOPPERS PLASTICS

Small jar by Bradley Sun Division of American Can Corporation, Hillside, New Jersey and large jar by Sheffield Plastics, Inc., Sheffield, Massachusetts.

NEWS IN PACKAGING...

1. The new equipment installed by **Air Formed Products Corporation,** a subsisdiary of Bemis Bros. Bag Company, makes this Carboy with a 53-mm. pouring spout and other large containers possible. Containers range from 16-oz. to 20 gallon capacities.

2. Liquatainer, by **Bemis Bro. Bag Company,** is a rectangular disposable carton for liquid or semi-liquid products, with a pliable film liner. Glenwood-Inglewood Company uses it for distilled and spring water.

3. Lipcolor Plus, a new lipstick by **Lanolin Plus,** is 35 per cent lanolin and comes in a white or black lustrous plastic case with a base of black and gold.

4. **Risdon Manufacturing Company's** Tint-Mist, for aerosol fragrances, is equipped with the Risdon metering valve and comes in aluminum, stainless steel, or glass. All caps are polished, gold-lacquered aluminum.

5. Stri-Dex Medicated Pads, by **Lehn & Fink Products Corporation,** for treatment of acne blemishes, have a redesigned package in white, turquoise and red, for easier brand identification.

6. Sun Up is a package of 15 individually foil-wrapped, **Du Pont** cellulose sponges, saturated with a greaseless sun tan lotion by **Angelique Company, Inc.**

1.

2.

3.

4.

5.

6.

Efficient Packaging

A new booklet, **20 Tested Methods to Imrove Packing and Shipping Operations,** by Better Packages, Inc., Shelton, Connecticut, contains tips, ideas and suggestions for shippers.

Shipping Containers

Schering Corporation has begun to use its own containers for overseas transport. They were designed by Walter Sullivan for Securitainer, Inc., New York. Safe and easy to handle, they reduce handling costs and lower insurance rates.

The containers have dimensions of 6 feet, 6 inches by 4 feet, 8 inches by 4 feet, 6 inches with an estimated inside capacity of 110 cubic feet. All pharmaceutical forms, such as tablets, ointments, injectibles and oph-

4. **Risdon Manufacturing Company's** Tini-Mist, for thalmics can be transported in them.

Bakelite Vinyl Resins

Two new, high-purity vinyl solution resins with high solubility characteristics are now available from Union Carbide Plastic Company. Intended for the preparation of product finishes and industrial maintenance coatings, the resins, Bakelite VYHD and VXCC, are medium molecular-weight, vinyl chloride-vinyl acetate copolymers. VYHD is unmodified; VXCC is structurally modified to impart metal-adhesion properties.

FDA Regulation

The Food and Drug Administration has published a regulation requiring manufacturers to provide the medical and pharmaceutical professions with more information in the labeling of most drugs and devices that are sold only on prescription.

The regulation will require a package insert that provides all necessary information for safe, effective use of the drug or device, including any information as to when its use would not be safe. The regulation was deemed necessary to insure the proper use of drugs and devices, after the FDA reviewed comments on the proposed regulation. It is the final action in the revision of FDA labeling regulations on drugs and devices and is effective March 5, 1962.

New Cold Temperature Label

A new pressure sensitive label which functions at temperatures below 30 degrees F., has been developed by the Avery Label Company, Monrovia, California. It is suitable for labeling drug and cosmetic products that must be subjected to cold storage, or other temperature extremes. It will adhere to a warm surface and stick even tighter during the freezing process. Moreover, it can be put on before or after freezing the product for versatility of application. •

BOTTLE TALK BY CARR-LOWREY

No matter how you line them up, every size of the #446 lightweight, square bottle does a trooper's job across the sales counter. Designed to give the extra value look of extra volume, it offers consumers good grip and handling features. The packer enjoys easy filling and labeling, plus a style that attracts both masculine and feminine tastes. In all standard sizes . . . clear, frosted, or color sprayed . . . plain or decorated to prove that glass stimulates sales.

CARR-LOWREY GLASS CO.

designers and manufacturers of fine glass containers

IF YOU'RE GONNA STAY IN THIS MAN'S ARMY, YOU'D BETTER LEARN HOW TO FALL IN!

FACTORY AND MAIN OFFICE: BALTIMORE 3, MD. / NEW YORK: 415 MADISON AVE. / CHICAGO: 1572 MERCHANDISE MART

NEWS and VIEWS

BY TED KLEIN PUBLIC RELATIONS DIRECTOR*

MSD Postgraduate Program

According to Frederick K. Heath, M.D., Director of Professional Relations for MS&D, the Merck Sharp & Dohme Postgraduate Program for the Medical Profession, now in its third year, is going forward at an impressive rate.

This is the type of project which lacks some of the spectacular luster that other professional relations plans might have, but the fact that MSD is spending thousands of dollars a year to help disseminate medical information is, in my opinion, a very worthwhile venture. In no part of the MSD program is a MSD product mentioned. There is no way that the Philadelphia pharmaceutical company can get product sales out of this venture.

In the coming months thousands of physicians will hear medical lectures, attend clinical symposia, listen to special radio programs and TV broadcasts as a result of the MSD Postgraduate Program.

The open-circuit TV program, "Dr. B," broadcast this past summer was the first time MSD went to the public via a television network. However, for the past several years they have used TV regularly to give the American viewing public various facts about our high standard of medicine and the men and women who work as a team in providing health care. MSD deserves a great deal of respect for their Postgraduate Program for the Medical Profession especially since today's highly competitive market has caused several firms to cut back on projects which are non-commercial in nature.

Written for Advertising

Rhett duPont of Francis I. duPont & Company recently reported his views on advertising in *Investornews*, a duPont monthly financial news magazine. He feels that too many businessmen and economists think advertising is a cost attributive to distribution which, if eliminated, would make companies more profitable.

"The truth lies elsewhere," says Mr. duPont. Without advertising, he believes, there would be little value left to the product manufactured. "No one today amongst economists or businessmen would consider manufacturing as simply a cost," he writes. "Without it something would be nothing to sell. So, statistically, in all economic measures, the production side of business comes under the heading 'value added by manufacture.' Oddly, the process of getting that added manufacturing value to the marketplace where, and only where, it assumes some value, is called 'cost of distribution'—with advertising a part of that cost. Far more accurate, and less befuddling to our thinking, would be 'value added by distribution.'"

Mr. duPont concludes: "Today more than ever before, advertising's essential function of increasing *total markets* as well as markets for individual brands, must be utilized to the utmost."

Between Discovery and Use

For 20 cents, communicators and others who serve the public in the pharmaceutical industry can obtain a most informative booklet on medical research from the Superintendent of Documents, Government Printing Office, Wash. 25, D. C., entitled, *The Costly Time Lag*.

The booklet, developed by the Department of Health, Education, and Welfare, deals with the unnecessary loss of life, health, and money which results when the public makes insufficient use of the findings of medical science.

According to estimates from the National Health Survey, the following information is given:

- 17 million persons have some type of chronic disability and a high proportion fail to receive care that could reduce handicapping effects.
- Twenty thousand persons die each year from preventable attacks of rheumatic fever and rheumatic heart disease.
- Forty thousand cancer deaths that could have been prevented occur every year—40 million children are growing up without the protection from tooth decay afforded by fluoridated water.
- Sixty thousand new cases of tuberculosis occur every year, although ways of preventing its spread are well known.

The booklet should be useful to anyone interested in the advances of the American medical team.

Fund Raisers, Notice!

A committee of health experts, under the auspices of the Rockefeller Foundation, recently studied for two years the thousands of fund-raising organizations that operate in this country. Many of these organizations solicit funds for "so-called" medical research. According to the report, few of them make a public accounting of how they spend the money collected. Estimates indicate that salaries of solicitors and operating expenses account for from 5 to almost 50 per cent of total expenditures.

Those of us on the fringes of the health team are often asked to give of our time and money to help fund-raising campaigns. Several of the executives of my organization have for years donated their services to various health charities.

I think it behooves all of us who ask our neighbors and friends for money to get fund raising organizations to make a full accounting of how their funds are spent. I understand that in Los Angeles an organization must give an accounting to whomever solicits funds before it can go to the public for funds.

Vacations

The summer is over and most of us have had a chance to go some place and do things we aren't ordinarily able to do during the rest of the year. I was fortunate enough to spend some time on Cape Cod, where among other things I continued to marvel at the diversity of the small town drugstore.

I was interested to see that in several towns the drugstore is still a center where people get together with their friends and buy everything from pop to penicillin. In almost every town the store that opened first in the morning and closed last at night was the drugstore. It was encouraging to see that the pharmacist realizes his obligation to the vacationer and items not usually found on the counters of city stores are in abundance where they are needed most.

*Paul Klemtner & Company, Inc.

NOW... FROM A SINGLE SOURCE

New Products

PHARMACEUTICALS

Marax Syrup (Roerig) has been designed for pediatric patients and others who may find it difficult to swallow Marax tablets. Indicated for control of acute and chronic urticaria, bronchial asthma, allergic rhinitis and purulent sinusitis.

Excedrin (Bristol-Myers) is an extra-strength analgesic designed for sufferers of the acute pain resulting from headache, arthritis, sinitus, and so on. It is 50 per cent stronger than aspirin for the relief of headache pain and is supplied in tins of 12 tablets, and bottles of 36 and 100 tablets.

Enduronyl (Abbott) is a new oral antihypertensive combination of methyclothiazide and deserpidine designed especially for the once-a-day management of moderate to severe hypertension. Each yellow tablet contains 5 mg. of Enduron and 0.25 mg. of Harmonyl. Each gray Enduronyl Forte tablet contains 5 mg. of Enduron and 0.5 mg. of Harmonyl.

Dactilase (Lakeside) combines antispasmodic and mucosal anesthetic action with comprehensive enzymatic support of digestion for treatment of a wide range of gastrointestinal disorders. Each tablet contains piperidolate hydrochloride 50 mg., standardized cellulolytic enzyme 2 mg., standardized amylolytic enzyme 15 mg., standardized proteolytic enzyme 10 mg., pancreatin 3X 100 mg., and taurocholic acid 15 mg.

Neolthylline Elixir (Pharmich) is an improved cardiobronchodilator that produces direct myocardial stimulation, dilation of coronary and other circulatory vessels and bronchioles, and has all the advantages of theophylline while eliminating its adverse effects. It may also be used to control hay fever, premenstrual tension due to fluid retention and for induced edema. Available in single or double strength.

Capla (Wallace) a new centrally-acting antihypertensive agent that lowers blood pressure with complete remission of the symptoms of essential hypertension, mediates its action through the central nervous system by action on the hypothalmic and medullary regions while having no direct effect on blood vessels or gangalia.

Clusivol Chew Tablets (Ayerst) are indicated whenever nutritional reinforcement with essential vitamins and minerals may be required. Available in bottles of 50 tablets.

Silain and Silain Gel (Plough) are two new products in the prescription drug field. Silain provides relief from abdominal distension. Silain Gel is effective in controlling gastric acidity. Both are available in bottles of 100 tablets.

Cantilyn (Lakeside) plain or with neomycin, is indicated as comprehensive symptomatic therapy for diarrheas, ulcerative colitis, acute gastroenteritis, diverticulitis, irritable bowel syndrome and other lower gastrointestinal tract spastic disorders. Supplied in bottles containing six fluid ounces.

Tindal (Schering) is a calming agent with a mild sedative effect that is particularly suited for use in the control of anxiety and tension states, especially when insomnia is a factor.

Emivan (U.S. Vitamin) is indicated for persons who have taken overdoses of barbiturates and for those suffering from emphysema and other breathing difficulties.

Polaramine (Schering) provides symptomatic relief from allergic conditions such as hay fever, urticaria, allergic eczema and others. Available in repetabs, tablets and syrup.

Kolantyl Wafers (Merrell) contain Bentyl hydrochloride for relief of acid indigestion, gas, heartburn and for the treatment of peptic ulcers. Active ingredients closely approximate those of Kolantyl Gel.

Mono-Kay (Abbott) is synthetic vitamin K_1, a specific agent for the prevention and treatment of hypoprothrombinemia. It is available for parenteral administration as a water emulsion with polysorbate 80 as a dispersing and emulsifying agent in tablets containing 5 mg. of Mono-Kay.

COSMETICS

Coty Instant Radiance is a new hair color rinse available in 11 shades that will color and cover in five minutes and last through five shampoos.

Scott Facial Foam, a polyurethane foam with an open pore structure, gives powder puffs greater softness, smoothness and absorbancy. It has thousands of air cells per square inch and can be washed and dried.

Charles of the Ritz men's Revenescence After Shave Treatment is a skin moisturizing treatment for use after a shave, in place of alcohol type after shave lotions. It comes in a 2-oz. bottle.

Max Factor's Autumn Sun Colors are three lipsticks and nail shades, Golden Apple, Golden Strawberry and Golden Lilac, plus Lime Mist powdered eye shadow and eye shadow stick.

Charles of the Ritz introduces Spotlight makeup, for day and night, featuring colors to look well in natural light and in artificial light. Available in lipsticks, eye makeups and nail polish.

Wrisley's Soap Blossoms, fragrant toilet soap in floral designed cakes, are available in pink, maize and turquoise.

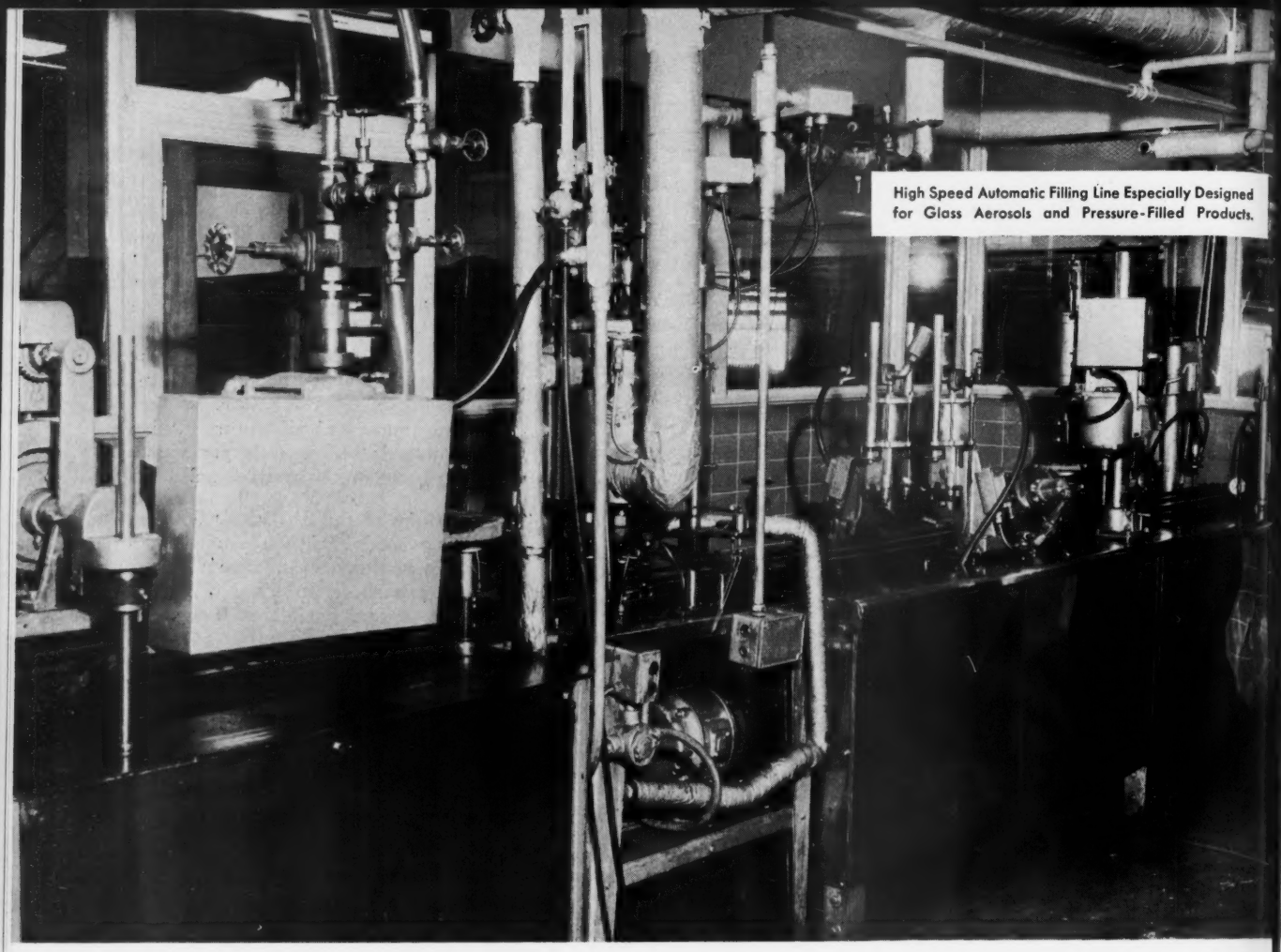
Westmore's new Perfect Touch flawless, matte-finish makeup is a complete foundation plus powder. Available in eight shades.

PERFUMES

Jaqueline Cochran, Inc., will introduce Capricci, a new perfume from the Paris fashion house of Nina Ricci. It comes in a Lalique cut crystal bottle, in perfume and eau de toilette.

Bronzini of New York's new fragrance named Ai, the Japanese word for love, is being produced and marketed by Cosmetic Chemicals Corporation. Available in perfume and parfume de toilette.

Rexall Drug Company has introduced four fragrances in the Pretty Kitty line of aerosol colognes. Fragrances include Siamese, Angora, Tabby and Lynx.



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FLUID has two of the largest and most modern contract liquid and aerosol filling plants in the United States, with seven filling lines. Ample formulating and storage facilities are also available, as required. Quality control of materials and of mixing and filling operations leaves no margin for error.

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PITTSBURGH (13), PA., U.S.A.

PSYLLIUM SEED

(Continued from page 443)

tice, it was not found to be satisfactory. Any continued use of mineral oil, even in combination, is apt to disturb intestinal digestion, produce flatulence and nausea, affect appetite and, hence, nutrition.

The next attempt to remedy the situation was far more logical and successful. It consisted in milling the psyllium testa or covering of the seed. This is the part from which the hydrophilic substance is derived. By dispersing the granules thus obtained in a mixture of sugar such as lactose or dextrose, the danger of impaction from insufficiently moistened psyllium substance is averted. The function of the sugars is not only to disperse the psyllium but also to supply nutrient material which promotes the growth of activity of favored intestinal bacterial flora. By favorable, I mean those tending to produce laxation. The judicious use of such a variant preparation is in my opinion the nearest approach to the ideal laxative for use in uncomplicated cases of habitual constipation.

Certain other modifications of even these substances, however, are desirable. These I now supply in prescription form to patients under my professional care, since I have long ago concluded that the human body is not subject to the standardization possible in drugs.

Of late, there has been a further attempt to modify the milled psyllium seeds by the addition of dioctyl-sodium sulfosuccinate or some other so-called "wetting agent." The reason for adding this substance is the assumption that its addition will help promote better bowel action by changing the character of the feces itself. In fact, it has been referred to as a "fecal softener."

However attractive this combination may appear on physical grounds, it does not impress me as either sound or desirable in its physiological aspects. The *modus operandi* of this fecal softener, dioctyl sodium sulfo succinate, is to decrease surface tension of the fecal mass and thus, by rendering it wetter, make it softer. The object is to help it pass more easily along and out of the food canal. With this I cannot quarrel, since such a change does function as an aid to elimination.

If the action of this substance was or could be limited to the dead intestinal debris, its employment might be justified. Such, however, is not the case. Its action is just as great on the living tissues lining the food canal. These tissues are comprised of cells whose physiological activity has proceeded from the beginning of time in accordance with a surface-tension climate supplied by Nature. Who can tell whether these functions, so vital to normal tissue, are modified by an *abnormal* surface tension? Who knows what affect this continued or recurrent alteration in surface tension can have on the *character* of the cell as well as on its function?

If my speculation on the potential danger inherent in the use of surface-tension disturbing substances appears to be too theoretical, permit me to reduce it to a more practical basis. None will deny that, from start to finish, from oral to anal cavity, the functional activities of the gastrointestinal tract are dependant on the activity of enzymes. These highly complex protein substances are the most important substances in the food canal. Upon their presence and effective activity depends the digestion of food, the absorption of nutrients, the composition in the last analysis, of body tissues.

Would any physician, much less scientist, be so naive as to believe that the surface-tension disturbing molecules have no effect on the activity and chemical integrity of the enzyme molecule? True, the use of dioctyl sodium sulfo succinate has extended over a period of time without apparently producing any violent evidences of derangement. However, the disturbances which I envisage would necessarily take place over a long period of time. It is my opinion that dioctal sodium sulfo succinate has been in use far too short a time to permit us to arrive at a conclusion either against or for its continued use. I feel amply justified, however, in issuing this word of caution. Though man can at times apparently transgress the laws of God with impunity, no one can transgress the laws of Nature, for she is a stern bookkeeper and sooner or later balances the ledger.

The conclusion I have reached, therefore, after 41 years of research on psyllium seed and its clinical use as a laxative agent, is that it has a definite and important place in the treatment of uncomplicated habitual constipation. I am convinced that the milled form of psyllium seed testa dispersed with suitable sugars is the best form in which psyllium may be used. I am presently opposed to the incorporation of any wetting agent in any psyllium seed preparation, and will continue to be so until after adequate clinical trials prove it to be as harmless as some now believe that it is.

HORMONE CREAMS

(*Continued from page 439*)

The Oil phase is melted at 75°C. and stirred until homogeneous. The aqueous phase is heated to the same temperature and then added slowly, with good stirring, to the oil phase. Stirring is continued until the mixture reaches room temperature. The above formula does not contain any hormone, but this can be easily incorporated into the oil phase, prior to emulsification.

Some years ago, an editorial was published in the Journal of the American Medical Association[6], in which hormone creams were criticized on the grounds that they were possible carcinogens. As a result of this criticism, many physicians have not recommend-

(*Continued on page 490*)

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NEWS

Expansions, New Plants and Acquisitions . . .

Schering Warehouse

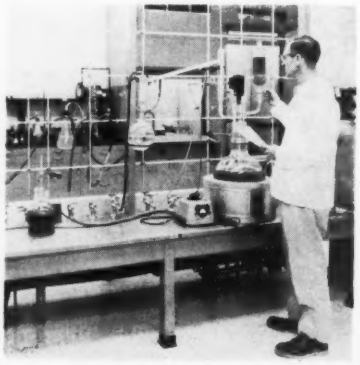
Schering Corporation plans to construct a Chicago branch warehouse and office. The building will house branch operations and materials now located in a leased facility. When completed in December, it will be the company's largest branch office.

Bauer & Black Research Center

A new research center is being planned by Bauer & Black, division of The Kendall Company. Occupying 40,000 square feet, the new center will be located in Barrington, Illinois and is scheduled for completion late in 1962. The cost is estimated at $1,500,000. Research will be concentrated in surgical dressings, adhesive plastics, sutures, foot products and elastic goods.

Continental Expansion

Continental Plastics of Oklahoma plan to expand their injection molding facilities through the installation of new equipment, enabling the company to increase production 20 per cent.



One of three chemistry laboratories in new Research Center designed as self-sustaining unit of Lakeside Laboratories, Milwaukee, Wis.

Baird Plans Expansion

Baird Chemical Industries plans to acquire Barlow Chemical Corporation. Directors of both companies have approved the transaction and Barlow stockholders will vote on the plan in the near future. The acquisition will be made on a cash basis pending stockholder approval.

Barlow, a ten-year-old manufacturer of Barquat quarternary ammonium compounds and Barlene tertiary amines, operates production and research facilities in Ossining, New York.

Baird also has awarded a contract for the design and construction of a Sorbital plant. For this new facility, which will have a capacity of 20 million pounds of Sorbital, Baird has allocated $1.500 000. The plant will be constructed to allow for ready expansion, especially for rigid polyurethan foams, pharmaceuticals and cosmetics.

Peerless Begins Construction

Peerless Tube Company will begin construction of a 33.000 square-foot addition to its present Bloomfield, New Jersey manufacturing facility for new product production. It is part of a $500,000 expansion program designed to enable Peerless to enter the plastic squeeze tube field. Construction will be completed in early 1962.

Biddle Sawyer Forms New Division

The Biddle Sawyer Corporation has announced the formation of a new division, Enzyme Development Corporation, which has been established for the purpose of expanding research, manufacturing and marketing facilities for enzymes and enzyme preparations.

Adelphia Opens Offices

The Adelphia Finance Corporation, a small business investment company, has opened offices at 1518 Walnut Street in Philadelphia. The new headquarters will provide advisory services, and handle financing for pharmacists and others in the drug industry.

McKesson & Robbins Acquires Skaggs-Stone

McKesson & Robbins, Inc., has signed an agreement to acquire the outstanding stock of Skaggs-Stone, Inc., of Oakland, California, in exchange for McKesson & Robbins stock.

New Hercules Office

The establishment of a new district office in Louisiana, Missouri, to handle sales and service of its agricultural products for a 14 state area, has been made by Hercules Powder Company's Agricultural Chemicals Division.

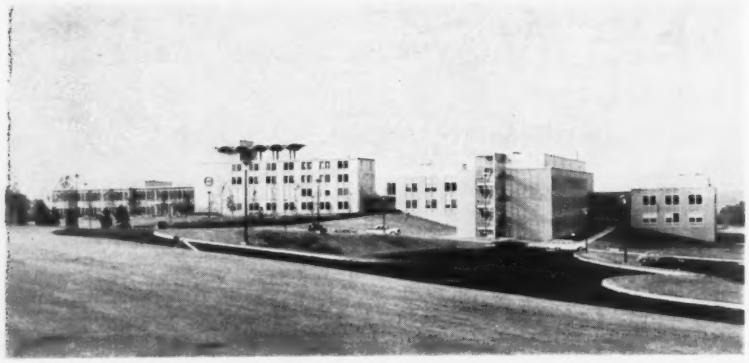
MRM Plant

MRM Company, Inc., manufacturers of labeling machines and filling equipment, will move from Brooklyn into a new plant in the Technical Industrial Park at Plainview, L. I., New York. MRM will be the first occupant of the 140-acre industrial park and plan to complete the move by late Fall.

McNeil Plant

The new McNeil Laboratories plant is made up of three buildings which have a combined floor space of 235,000 square feet. The plant, located in Fort Washington, Pennsylvania, will provide McNeil with added facilities for research in the areas of geriatrics, the central nervous system, and other projects.

View of the new headquarters plant of McNeil Laboratories, Inc., in Fort Washington, Penna.



View of new Koppers Research Center, Monroeville, Penna., from the main entrance of the park.

Koppers Dedicates

Koppers Company, Inc., has dedicated its new research facilities at Somervell Park, Monroeville, Pa. It represents an investment of approximately eight and one-half million dollars according to Fred C. Foy, chairman of the board.

The new facility will be headquarters for the company's research department. Only one third of the buildings planned for the 176 acre site have been completed and no firm schedule for construction of the remaining buildings has been set.

Radioisotope Enterprise

An application to establish a joint radioisotope enterprise in Japan has been filed with the Japanese government by the Abbott Laboratories subsidiary in Switzerland and Dainippon Pharmaceutical Company, Ltd., of Osaka, Japan.

The joint company, Dainabot Radioisotope Laboratories, Ltd., will build a processing plant in Matsudo, a suburb of Tokyo. If approval is given this year, production could be under way by mid-1962. This would enable Japan to produce its first domestic supplies of radio-pharmaceuticals, which now must be imported from the United States and Great Britain. The new operation will be conducted entirely by Japanese personnel. Two Japanese technicians are already undergoing training at Abbott's plant at Oakridge, Tenn.

Warner Acquires Plastic Artisans

Warner Brothers Company has acquired Plastic Artisans, Inc., of Port Chester, New York. Frank J. Marchese has been appointed director of marketing and sales, and will be responsible for paperboard, plastic and combination packaging sales. Plastic Artisans, while operating as a fully integrated part of Warner's packaging division, will maintain their present manufacturing and sales organization under the direction of C. Middleton, Jr., founder and president of the company.

Plastic Suppliers' New Facility

Plastic Suppliers of New Jersey has extended its services into the Southwest and West Coast markets with its new converting and warehousing facilities in Dallas, Texas.

Hodag Chemical Expands

Hodag Chemical Corporation, has completed a new two-level building and the installation of automatic equipment which will double the company's production of surface active chemicals.

Catalin Acquires Lebec

Harry Krehbiel, president and board chairman of Catalin Corporation of America, has announced that the board has ratified the acquisition of Lebec Chemical Corporation in southern California. Catalin has also acquired the assets of the Pomar Corporation, owner of the property.

John C. Plummer, principal stockholder and president of Lebec, has been elected a director as well as a vice-president of Catalin.

Pfizer Expands

Globe Laboratories, Inc., producer of animal vaccines and veterinary pharmaceuticals, will become a division of Chas. Pfizer & Company, Inc., under terms of a recently signed contract.

Pfizer will acquire the assets and business of the company in exchange for 45,000 shares of Pfizer stock. The acquisition, subject to the approval of Globe share owners, was announced jointly by Pfizer vice-president J. J. Thompson and Globe president Frank Jones, D.V.M.

Pharmaceuticals and animal health products will be made locally available in Nationalist China with the opening of a new Pfizer International plant outside Taipei, Taiwan. The 16,000 square-foot plant will be constructed to allow for further expansion.

Mallinckrodt Builds

Mallinckrodt Chemical Works Ltd. has announced plans for the construction of new facilities on a four-acre site in Pointe Claire, Quebec, Canada. Dr. D. D. Calder, vice-president and general manager of the firm, indicated a capital outlay of a half-million dollars.

The plant will be designed to replace outmoded facilities in Montreal and to consolidate Mallinckrodt's manufacturing, warehousing and administrative activities. Construction will be completed late this year.

New Continental Office

Continental Manufacturing Company has opened a new office in Houston, Texas, to provide regional sales management and technical sales assistance to the company's sales representatives and distributors in the Louisiana-Texas, New Mexico-Arizona areas. The new office is at 3400 Montrose Blvd. in Houston.

Company News . . .

Zotox Changes Name And Signs Contract

Zotox Pharmacal Company, now New Medical Techniques, Inc., has signed a contract under which Textron Pharmaceuticals, Inc., a division of Textron, Inc., will market seven major Zotox products. Textron will pay New Medical a royalty of 5 per cent of net factory sales for ten years and spend a stipulated percentage of net factory sales to advertise the products during that period.

P&G Educational Support Program

Procter and Gamble have announced a division of $1,400,000 among 14 selected independent universities in a five-year program of educational support. These funds are in addition to other P&G activities

in behalf of higher education which include 240 scholarships, payments to 500 small colleges, assistance to five graduate schools, technical fellowships and special grants.

Torsion Balance Signs Overseas Agreement

The Torsion Balance Company, has concluded a dual sales and manufacturing agreement with Baird & Tatlock Ltd., London, to manufacture and market torsion balances in the British Commonwealth. The new agreement, provides for separate and reciprocal manufacturing and marketing pacts.

Manufacturers Representative

After more than 15 years as regional and district sales manager of the Wildroot Company and the Alberto Culver Company, Dave Schatz has gone into business for himself as a manufacturers representative in the Chicago-Midwest market, for drugs, cosmetics and sundries. His offce is at 1620 S. Canal St., Chicago.

New Pfizer Book

The Pfizer Handbook of Microbial Metabolites, published by the McGraw-Hill Book Company, is a nonprofit service to science and education, filling the need for a reference work of this kind. It provides data on the source and the physical and chemical properties of all known metabolic products isolated from bacteria, molds, fungi and lichens.

(Reviewed on page 543)

Wyeth Grants Fellowships

Twenty physicians have been chosen as recipients of residency fellowships in pediatrics by the Wyeth Fund for Postgraduate Medical Education, sponsored by Wyeth Laboratories of Philadelphia. The program was established in 1958 and provides fellowships of $4,800 to finance two years of advanced study.

New Winthrop Films

Winthrop Laboratories has added five new medical motion pictures to its film library. The films, available for immediate showing, include: Avoiding Complications of Spinal Anesthesia; Epidural Anesthesia for Vaginal Delivery in Obstetrics; Hepatic Trauma, New Concept of Surgical Repair; Transvaginal Regional Anesthesia in Obstetrics; and Disinfection of the Skin.

This imaginative display of Old Spice after shave lotion by William Russell of Demery's Department Store, Detroit, Michigan, won the category 1, (department stores—cities of 220,000 or more) first prize in the 1961 Old Spice Father's Day Display Contest sponsored by Shulton, Inc.

Chemical Market Abstracts in Japan

Chemical Market Abstracts, Foster D. Snell, Inc.'s, chemical marketing service, has appointed the U. S.—Asiatic Company, Tokyo, as its exclusive representative in Japan. U. S.—Asiatic will handle sales of CMA, Polymer Market Abstracts and The Common Chemical Market.

Crompton & Knowles Exchanges Experience

The Crompton & Knowles Packaging Corporation has concluded a technical partnership agreement with Clavell, Bate & Nephews Ltd., a leading British packaging machinery manufacturing company. The affiliation provides for a complimentary exchange of packaging machinery experience.

Schering Services Group

An administrative services group to improve procedures and give proper organizational status to data processing services furnished to all divisions, has been formed by Schering Corporation. The group, directed by William B. Spencer, will be given large scale computing facilities for service to marketing, research, production, finance and other corporate operations. Dr. Bradley Whitman has been named special staff assistant and Joseph R. Zack and Edward Thieme will head two newly formed departments.

Eppenbach Appoints Mid-northern Agent

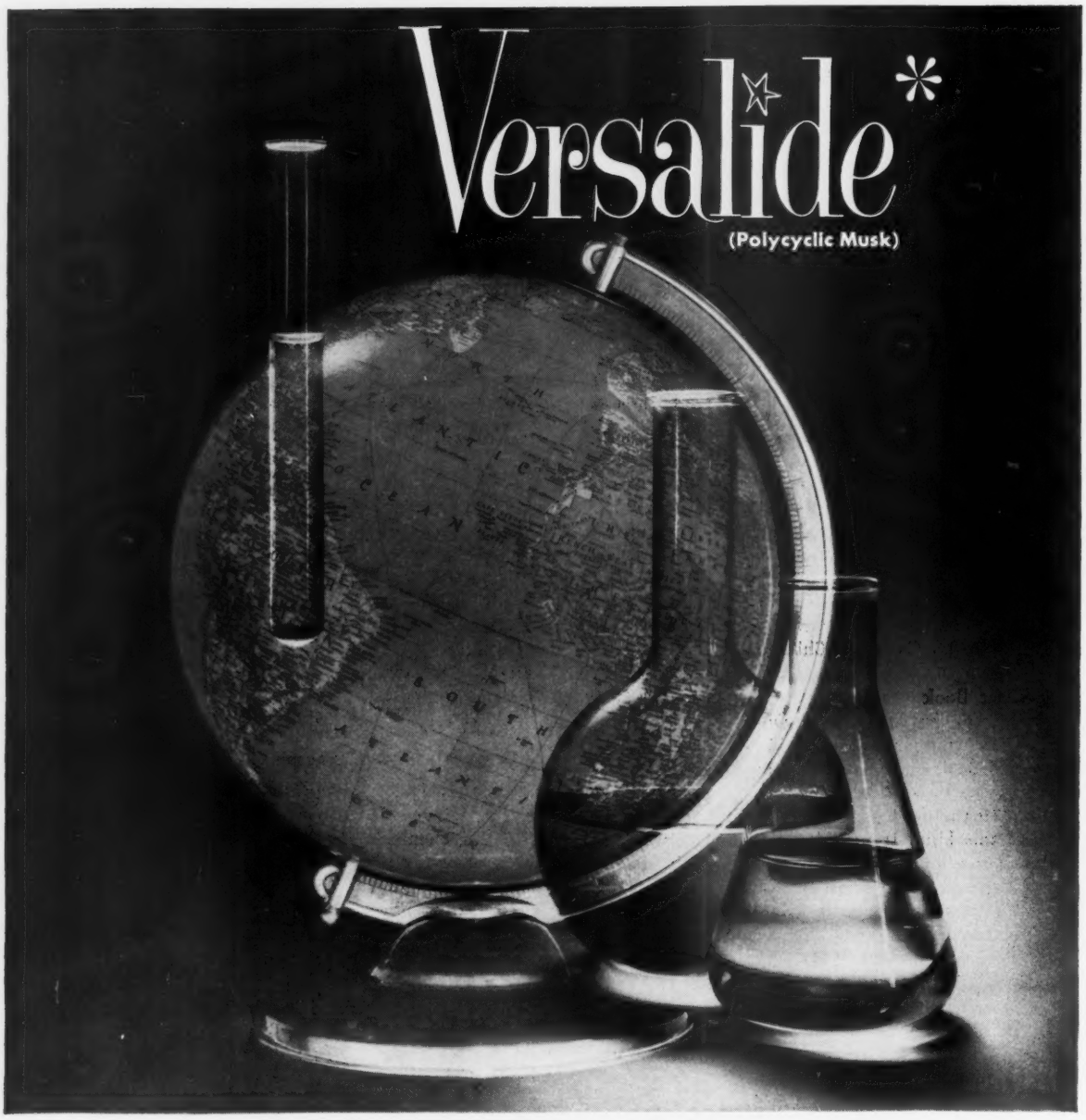
The C. C. Day Company, 1152 Plymouth Building, Minneapolis, Minnesota, has been appointed as general sales agents for the Gifford-Wood Company's Eppenbach Division, which manufactures homogenizing, emulsifying and dispersing equipment for the petro-chemical, cosmetic and pharmaceutical industries. The agency will represent Eppenbach in North and South Dakota, Minnesota and Northern Wisconsin.

Adolph Gottscho Appoints Equipsale

Adolph Gottscho, Inc., has appointed Equipsale Company, Clarendon Hills, Illinois; Material Handling Equipment Company, Richmond, Virginia; and Webster Equipment Company, Chicago, Illinois, as new sales agents in the U. S. Griswold Engineering Ltd. has been named exclusive distributor in Ontario and the maritime provinces of Canada. Markoprint Ltd., London, has been licensed to manufacture and sell machines in Europe and all British Commonwealth nations except Canada.

New Locations

Frank Orlandi, Inc., perfume advertising specialists, have moved from their Beekman Street facilities to 13 Frankfort Street, New York City 38. . . . The offices and plant of **Flam-Haft Laboratories, Inc.**, have been moved to enlarged facilities at 832 Broadway, New York City. . . . **Anchor Hocking Glass'** Baltimore Package Division display and sales office is now at 100 Latrobe Building, 2 East Read St., Baltimore, Md.



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People . . .

Wellcome Grant

The Wellcome Trust of London has announced a grant of $50,000 to provide a Senior Wellcome Research Fellowship for Dr. Karlis Adamsons at the Columbia-Presbyterian Medical Center. Dr. Adamsons is with the College of Physicians and Surgeons of Columbia University.

Croda Directors Here

Mr. E. S. Lower, managing director, research, and Mr. N. R. Kirk-

E. S. LOWER

by, sales director, both of Croda Limited, England, have been visiting United States industries using Croda products.

Dr. Hite Joins Faculty

The Columbia University of Pharmacy has announced that Dr. Gilbert J. Hite will be assistant professor of pharmaceutical chemistry. Dr. Hite's specialty is the chemistry of organic medicinals.

Dr. Kallelis Appointed

Dr. Theodore S. Kallelis has joined the faculty of the Temple University School of Pharmacy as associate professor of pharmacognosy. His research includes the study of effective antioxidants on the stability of ascorbic acid and cyanocobalamin solutions.

1962 Fritzsche Award

Professor E. R. H. Jones of Oxford, England, has been selected by the American Chemical Society as the recipient of the Fritzsche Award. He was selected for his outstanding contributions in the field of terpenoid chemistry.

CSMA Representative

Frederick G. Lodes represented the Chemical Specialties Manufacturers Association at the International Congress of the Federation of European Aerosols in Lucerne, Switzerland. The CSMA recently formed an European Aerosol Liaison Committee with Mr. Lodes as chairman.

Urdang Medal

The seventh George Urdang Medal has been conferred on General Rafael Roldan y Guerrero, pharmacist-historian of Madrid, Spain, by the American Institute of the History of Pharmacy. Particularly cited by the evaluation committee was General Guerrero's five volume work which covers nearly 2500 Spanish pharmaceutical authors.

Lascoff Memorial Award

William S. Apple, secretary and general manager of the American Pharmaceutical Association has received the American College of Apothecaries' 1961 J. Leon Lascoff Memorial Award for his work in behalf of the profession.

Bristol Honored

Lee H. Bristol, chairman of the board of the Bristol-Myers Company, has been named National

LEE H. BRISTOL

Chairman of Brotherhood Week, to be observed next February 18th to 25th.

AMA Appoints Fredell

Walter G. Fredell has been appointed assistant secretary to the committee on cosmetics of the American Medical Association.

George A. Domeritt receives congratulations from Dean Howard C. Newton of Massachusetts College of Pharmacy upon winning first annual Johnson & Johnson Scholarship for postgraduate study in pharmacy administration.

Benson Storfer Honored

Benson Storfer was honored on his 50th anniversary in the fragrance industry at the first sales meeting of Parfums Corday, Inc., as

BENSON STORFER

a wholly-owned subsidiary of Max Factor & Company. Mr. Storfer was president of Corday from 1931 until last July.

U. of Illinois Appointment

Dr. Martin I. Blake, presently associate professor of pharmacy, has been named professor and head of the department of pharmacy at the University of Illinois College of Pharmacy. Dr. Blake has been a special consultant to the Argonne National Laboratory for the past year.

McAdams Fellowship

William Charles O'Neil, Jr., a sales representative for the Charles

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Pfizer Company, has been awarded the William Douglas McAdams Fellowship for the two years of study leading to a M. B. A. degree at the Harvard Business School. The fellowship was established by the McAdams Advertising Agency as a tribute to its founder.

NACDS Chairman

Boone Gross, president of the Gillette Company, has been named general chairman of the National Association of Chain Drug Stores' bienniel convention. H. M. Poole, Jr., vice-president in charge of sales for Johnson & Johnson will be chairman of the business program committee and Sam Moxley, president of the Haag Drug Company, will be co-chairman.

Levy Medal

Dr. John H. Holland, whose studies have brought scientists closer to an understanding of memory processes in complex mechanisims and the human brain, will be awarded the Louis E. Levy Medal of The Franklin Institute. Dr. Holland, who is on the faculty of the University of Michigan, will receive the medal for his paper, "Cycles in Logical Nets."

Fritz Pregl Plaque

The Fritz Pregl Plaque, established by the Austrian Microchemical Society, has been awarded to Dr. Al Steyermark, head of the microchemical department of Hoffmann-La Roche, Inc.

Columbia Student Awards

Columbia University's College of Pharmacy has announced the recipients of awards and scholarships. Morris Herstein, one of those honored, was granted five major awards.

Retirements

Raymond W. Mossman, director of Eli Lilly and Company's distribution and warehousing division since 1944, has retired. Mr. Mossman joined Lilly as a salesman in 1928 and became manager of the Detroit district in 1932.

Thomas J. Western, with Parke, Davis & Company for 50 years, has retired. Promoted to the stock transfer department in 1929, he has, since that time, supervised the transfer of nearly 31,000,000 shares of stock.

Association News . . .

ISA Elects Officers

Philip A. Sprague, president of The Hays Corporation, has been elected president of the Instrument Society of America, succeeding Dr. Ralph H. Tripp of Grumman Aircraft Engineering Corporation. Nathan Cohn, vice-president of Leeds & Northrup Company, was named president-elect-secretary and John R. Mahoney, a superintendent at Union Carbide's Nuclear Plant in Oakridge, Tennessee, was named vice-president-elect of the standards and practices department. Dr. Benjamin W. Thomas, director of instrumentation physics research, Texas Butadiene & Chemical Corporation, was chosen vice-president-elect of the technical department.

In addition, the Society has conferred honors and awards to 16 members of the instrument profession for their contributions and achievements in the art and science of automation. A 17th award, that of Lifetime Honorary Member, will be given to Dr. I. Melville Stein, president of Leeds & Northrup Company.

Drug and Allied Products Appoints Aarons

Morris Aarons, practicing New York City Attorney and graduate of the Fordham University Pharmacy School, has been appointed executive secretary and general counsel of the Drug and Allied Products Guild, Inc.

Administration Policies

Hugh C. Hoffman, vice-president of the Opinion Research Corporation, spoke before the Synthetic Organic Chemical Manufacturers Association about the skepticism pervading the top ranks of business with regard to the Administration's policies for stimulating economic growth and expansion.

The talk was based on a survey by Opinion Research of 150 top corporate executives; 50 in manufacturing, 50 in utilities and 50 in finance. Findings show that many corporations have the capital to expand; the one factor that seems lacking to fuel economic growth is confidence that the risk will be rewarded.

87th Annual NWDA Meeting

Senator Roman Hruska (R.Neb.), minority member of Senator Kefauver's senate subcommittee on antitrust and monopoly, will be one of the principal speakers at the 87th annual meeting of the National Wholesale Druggists' Association. He will outline some of the pitfalls inherent in the current rash of government investigations and list some of the aims behind the current hearings. In addition, Dr. Edward R. Annis, M.D., one of the major spokesmen for the AMA, will give his views on the current government medical aid to the aged controversy and what steps private medicine is taking to meet the situation.

APhA Elects

George F. Archambault, liaison officer to the Office of the Surgeon General of the U. S. Public Health Service, and chief of the pharmacy branch, Division of Hospitals, U. S. Public Health Service, has been elected president-elect of the American Pharmaceutical Association. Practicing pharmacists J. Curtis Nottingham and Lee E. Eiler have been elected to serve as first and second vice-presidents during 1962-1963.

AHFS Relocates

The office of the American Hospital Formulary Service, a publication of the American Society of Hospital Pharmacists, has been moved to Society headquarters, 2215 Constitution Avenue, N. W., Washington 7, D. C.

Glycerine Producers Announce Awards

Annual awards for scientific advances relating to glycerine and its derivatives have been announced by the Glycerine Producers' Association. Nominations should be made to the Association office, 295 Madison Avenue, New York City 17, before November 1, 1961.

Dr. Sciarra Attends European Aerosol Congress

Dr. John J. Sciarra, associate professor of pharmaceutical chemistry at St. John's University, attended the Third International Aerosol Con-

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gress of the Federation of European Aerosol Associations, and presented a paper on the Development of Pharmaceutical and Medicinal Aerosols in the United States.

AMA Courses

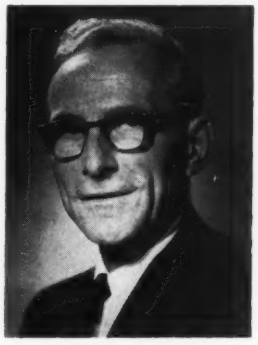
Included among the courses offered by the American Management Association in its fall and winter schedule of management education, are those on quality, control, maintenance management, and manufacturing management, of particular interest to our industry. Programs are available from the AMA Registrar, 1515 Broadway, New York City 36.

Edward Kremers Award

Nominations for the first Edward Kremers Award, for distinguished historical writing about pharmacy by an American, will be accepted until December 31, by the American Institute of the History of Pharmacy, 356 Pharmacy Building, Madison 6, Wisconsin. Established by the Institute in 1961, the award will commemorate a pioneer of historical work in American pharmacy, and pharmaceutical education, during his lifetime (1865-1941).

Appointments and Promotions. . .

Charles A. Suter, executive vice-president since 1950, has been elected president of Geigy Chemical Corporation, succeeding **William F. Zipse,** president of the firm since 1943.



CHARLES A. SUTER

The board of directors of Marine Colloids, Inc., have elected **James R. Moss** executive vice-president. Mr. Moss joined Marine Colloids as vice-president three years ago.

JAMES R. MOSS

Dr. Maurice L. Moore, director of new product development for Sterling Drug, Inc., has been appointed executive vice-president of Winthrop Laboratories, Sterling's principal pharmaceutical manufacturing organization. Dr. Moore is also a member of the Sterling research board.

Frank G. Fanning has joined Millmaster Chemical Corporation as vice-president of the Fanning Chemical Division. The division will market lanolin and lanolin derivatives.

Revlon International Corporation has announced the appointment of **Sidney Stricker, Jr.,** formerly with Schenley Industries, as vice-president, marketing. **Harry Silverglat** is now group advertising director of Revlon, Inc.

Dr. Samuel Zuckerman, vice-president and technical director of the color division and **Leslie P. Ogden,** formerly with the Penn Mutual Life Insurance Company, have been elected to the board of directors of H. Kohnstamm & Company, Inc. Dr. Zuckerman has been with the firm since 1936.

Lakeside Laboratories, Inc., has named **Howard Albright, M.D.,** formerly with Bristol Laboratories, director of clinical research. **Murray Finklestein, Ph.D.,** recently joined the scientific staff as chief of the Pharmacology Division.

A. C. Fusaro, who has been in the advertising department of Emery Industries, Inc., for 11 years, has been appointed director of advertising. Other appointments are: **E. W. McNerney** as manager, Sanitone advertising, and **E. L. Spencer** as manager, chemical advertising.

William E. Melby is now director of sales and marketing for the Wilson Laboratories Division of Wilson & Company, Inc. Mr. Melby was director of sales and marketing for the Pharmwich Laboratories Division of Michigan Chemical Corporation. **Dr. Conrad W. de Fiebre** has been appointed research director.

The appointment of **Robert A. Miller** as sales manager for specialty

DR. MAURICE L. MOORE

plastic films has been announced by Allied Chemical's General Chemical Division. Mr. Miller has been with the division for 15 years. **George M. Feeser, Jr.,** succeeds **Ralph E. Bankert** as plant manager of the Baker & Adamson Works. Mr. Bankert has been made a product manager at the New York office. Three research appointments have also been announced. **William C. Ruch** as director of development research; **Dr.**

FRANK G. FANNING

Robert W. Mason as director of laboratory research; and **Charles D. Boyer, Jr.,** as director of planning research. In addition, **William E. Houghton,** with the division for 28 years, has been named manager of market surveys for the General Chemical Division.

Henry G. Ludwig has been promoted comptroller of marketing divisions by Hoffmann-La Roche, Inc. Mr. Ludwig joined Roche in 1946. In addition, **Herb Grossman** has been appointed product marketing manager and **Dr. Jacob B. Chassan** has been appointed statistician for the research department.

Dr. Keica Nishie, who attended Northwestern University Medical School and the Faculdade Nacional de Medicina, Rio de Janeiro, has been appointed senior research pharmacologist for Baxter Laboratories,

SYDNEY STRICKER, JR.

DR. SAMUEL ZUCKERMAN

HOWARD ALBRIGHT, M.D.

Jack Rasmussen is now manager of mid-western operations for Perry Brothers, Inc. Mr. Rasmussen was with Albert Verley & Company before coming to Perry.

The Duveen Soap Corporation has named **Jack Walls** West Coast representative. Mr. Walls has been in the industry for 28 years.

Raymond Spector has been elected chairman of the board of directors at Hazel Bishop, Inc. The following were elected directors: **Raymond Meffen, Matthew Middleton, Henry L. Sondheim** and **Milton E. Mermelstein.**

The National Distillers and Chemical Corporation has announced the election of **Joseph J. Daniels** to the board of directors. Mr. Daniels is general counsel for Panhandle Eastern Pipe Line Company.

William C. Freeman, who directed the midwest representation of Paul A. Dunkel & Company, Inc., is now president of the company, replacing Paul A. Dunkel, who died recently.

The Vick Chemical Company Division of Richardson-Merrell, Inc., has appointed **John T. McLoughlin,** formerly with Mead Johnson and Company, president and general manager. **Ernest P. Zobian,** is now, executive vice-president.

Michigan Chemical Corporation has announced the election of **Fred W. Elliott** as executive vice-president. Mr. Elliott was formerly group

Inc. **Jesse W. Gwaltney,** formerly administrator of hospitals in Carthage and Springfield, Tennessee, is now medical service representative.

Obituaries

M. Shapiro

Morris Shapiro, chairman of the board of Lucky Heart Laboratories, Inc., died recently after a brief illness. He founded the laboratory in 1935 after selling his interest in Keystone Laboratories which he also founded.

M. C. Moore

Malcolm C. Moore, manager of the technical personnel development section of Hercules Powder Company's personnel department, died recently in Wilmington, Delaware. He had been an employee of Hercules for almost 36 years.

P. Chaleyer

Philip Chaleyer, a leading creator of new perfumes, died recently at Greenport, Long Island. He sold his own company in 1953 and had been serving since then as a consultant to Hoffman-LaRoche and Rhodia, Inc. A once frequent writer for DCI, he originated our *Perfumers Shelf.*

W. F. Wilson

William Findlay Wilson, 54, president and general manager of Anchor Cap & Closure Corporation of Canada, Ltd., died recently following a heart attack. He joined Anchor in 1928 as a salesman and was made vice-president of sales in 1946.

P. A. Dunkel

Paul A. Dunkel, chemical importer and well known amateur golfer, died recently after an illness of several weeks. He headed the Paul A. Dunkel Company in New Jersey.

R. M. Aude

Robert M. Aude, president of the Heyden Chemical Division of Heyden Newport Chemical Corporation, died recently at his home after a short illness. Prior to joining Heyden, he was with Monsanto Chemical Company.

Dr U. Haberland

Dr. Ulrich Haberland died recently of a heart attack in West Germany. He was chosen by the allied powers in 1945 as trustee in the dissolution of the old I. G. Farben trust, for which he had worked since 1928. After the war he built Farbenfabriken Bayer, A. G., into a major manufacturer of pharmaceuticals and heavy chemicals.

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HORMONE CREAMS

(*Continued from page 475*)

ed the use of hormones in cosmetic formulations. However, it is interesting to note that "The use of estrogen in medical practice has been increasingly widespread for the last 20 years; the hormone has been frequently misused and given in unwarranted large doses; yet there is not a single authenticated clinical case on record of the production of cancer by estrogen."[6] Hormone creams would seem, therefore, to have been exonerated from the charge that they induce or accelerate cancer. Indeed, the modern trend in cancer therapy favors the use of estrogens in large doses, to treat inoperable carcinoma of the breast. Dr. I. T. Nathanson, a leading authority in this field, has, in fact, stressed very strongly the value of estrogen in the treatment of breast cancer.

Since the amount of hormone in a hormone cream requires careful regulation, accurate assay methods are necessary. Infrared spectroscopic procedures have been developed, and these are very precise. Biological methods for the assay of hormones have also found much favor. The biological assay of estrone depends upon the observation of certain changes in the cellular constituents of the vagina. We shall not, here, enter into details of these procedures, except to say that, in the hands of a trained technician, they are capable of giving very accurate results. An adequate description of these biological assay procedures will be found elsewhere.[4]

REFERENCES

1. Goldzieher, J. 1946. Gerontol. **1**: 196.
2. Traub, E. F. April 2, 1946. Hearing before the Louisiana State Board of Health.
3. Eller and Eller. 1949. Arch. Dermatol. and Syphilol. **59**: 499.
4. Levenstein. 1957. Cosmetics: Science and Technology. Chap. 7. Interscience Publishers, Inc., New York, N. Y.
5. Bisomel, Cosmetic Materials. British Industrial Solvents, London, W.1., England.
6. Goldzieher. 1957. Cosmetics: Science and Technology. Chap. 48.

MER/29

(*Continued from page 438*)

uation may be pointed out."

Merrell had agreed in advance that the full proceedings of the Princeton conference would be published as a supplement to *Progress in Cardiovascular Diseases*. This was done in May, 1960. By June 1, the marketing of MER/29 to the nation's doctors was ready to roll.

To spearhead the advertising and promotional effort, Merrell recalled to Cincinnati a former employee, Gil Totten, who was named director of advertising. Mr. Totten had been working with William Douglas McAdams Inc., New York, a leading medical advertising agency. The McAdams firm was assigned to MER/29. This was a unique product and the advertising also turned out to be unique. It involved the following steps:

1. On June 1, a first-class letter signed by the president of Merrell went out to some 160,000 practicing

doctors announcing the availability of MER/29.

2. This was followed immediately by the delivery via Western Union of hard-cover binders to some 100,000 doctors. This loose-leaf binder contained basic data on MER/29, including a *precis* of the Princeton conference. Doctors were advised that further reports on MER/29 activity would be issued and they were urged to add this data to their binders. "We believe," Dr. McMaster wrote, "that your continuing review of all published experience with this drug can best help you evaluate the role this unique new agent can play in your practice."

3. On July 1, journal advertising began with the placement of eight-page inserts in a basic list of 15 publications. Advertising was restricted to mass medical magazines such as the *Journal of the American Medical Association*, *MD*, *Modern Medicine* and *Medical Economics*, and to several specialty journals such as the *American Journal of Cardiology*, *Annals of Internal Medicine* and *Circulation*.

4. The same insert was repeated in August issues and Merrell then reduced the size of insertions to double pages and full pages, running them through the rest of the year at the rate of one a month.

5. The direct mail program, calling for three contacts a month with doctors, was maintained. The basic vehicle consisted of "Facts About MER/29" folders which were designed to be added to the binder already distributed to doctors. The tenth folder in this series was an impressive annotated bibliography of "Cholesterol and Artherosclerosis," covering the years 1958 through 1960.

Supplementing the advertising program was a concentrated detail effort, organized at a national sales conference of all Merrell detailers at French Lick, Ind. Merrell has about 300 detail men and this was the first national conference for them in a number of years. The detail effort was considered quite important since doctors, unfamiliar with therapy of this kind, would tend to turn to detailers for more information. There was *no* sampling done on MER/29 because this is not a product that can be used efficaciously over a short run. Patients on MER/29 have to use it for a long period. The recommended dosage is one capsule per day, which works out to a cost of $9 per month for each patient.

There were several interesting facets in the marketing of MER/29, to wit:

1. More than $800,000 was spent on advertising in the first year and this meant nearly a 100 per cent increase in the total Merrell ad budget.

2. Previously, Merrell had been a heavy user of journal advertising, compared with direct mail. In introducing MER/29, however, the company relied heavily on direct mail, spending more than 60 per cent of the budget in this medium.

3. Advertising was maintained at a documentary level. The first insert, announcing the availability of the drug, was able to cite 40 different published ref-

(*Continued on page 551*)

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Chanel, Inc.
Parfums Charbert, Inc.
Charles of the Ritz (Directoire)
Mary Chess
Cigogne Sortilege
Ciro, Inc.
Colonia, Inc.
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Germaine Monteil
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Nina Ricci
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Roger & Gallet, Inc.
Nettie Rosenstein
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Patents and Trademarks

BY THOMAS CIFELLI, JR., PATENT ATTORNEY*

Liberal Trend Continues

At a time when the drug industry is under attack from certain congressional quarters led by Senator Kefauver, there is, nevertheless, some good news for the industry from another quarter. The attack referred to is Senator Kefauver's Bill S-1552, which would make far-reaching changes in drug patent rights, and which was considered in detail just two months ago in these columns. The good news referred to comes from the United States Court of Customs and Patent Appeals, in the form of three recent decisions, all of which have the effect of liberalizing the demands on patent applicants in drug cases as regards what constitutes an adequate statement of utility.

One of the problems which the drug industry has had to face up to during the last ten years or so has been that of satisfying the requirement that an adequate statement of utility should be in every patent application. This is not as easy a requirement to fulfill as may appear at first glance. This follows because, although most of the drug research has as its ultimate object the development of materials that will aid in the treatment of *human* ills, the procedures required before a drug can go through all of the screening and clinical tests required before its safety in the treatment of human beings has been established take a long time.

Consequently, patent applicants have really been on the horns of a dilemma, caused by the fact that the longer they refrain from filing a patent application the greater the risk they are taking that someone else might beat them to the Patent Office. Hence, patent applications on drugs are often filed before their clinical usefulness has been established on human beings.

For some time it appeared that the patent applicant in the drug field was fighting a losing battle. However, as has been mentioned before in these columns, over the last few years the authoritative United States Court of Customs and Patent Appeals has more or less come to the rescue of drug applicants by construing the statutory requirements in a manner which makes the satisfaction of the utility requirements, even in drug cases, no longer onerous.

The first of the recent cases involves an application of Franz Bergel and John A. Stock. The application dealt with a new compound, para-bis-(2-chloroethyl)-aminophenylalanine, as well as a process for preparing it. All that the application contained with regard to the utility of the compounds was found in the following language:

"This invention relates to chemotherapeutic agents and has as an object to provide an improved compound having tumor growth inhibitory action and process for the manufacture thereof.

"The L form has greater tumor growth inhibitory action than either the D form or the racemic form. All forms are, however, effective tumor growth inhibitors when tested against transplanted Walker rat carcinoma."

The Patent Office took the position that the protection of rats or mice from the growth of cancer is not a sufficient usefulness to justify a patent. Indeed, the Board of Appeals even stated that the elimination of the rodents themselves would seem to be a more desirable objective.

However, the court rejected this point of view. The court pointed out that chemotherapeutic agents are first used pharmacologically on animals prior to their use in clinical cases. Thus, before a drug can proceed to a clinical trial it must be a pharmacological success on animals. The court therefore took the success in pharmacological testing as a plain indication of utility. In this particular case the court is believed to have had in the back of its mind that its decision might be an aid in the fight for a cancer cure. In this connection, for example, the court stated as follows:

"Our conclusion is influenced by a background of common knowledge that cancer is one of the dreadest of all diseases; that for years untold measures of time, talent, and treasure have been devoted to a search for means to prevent its spread and discover a cure; and that as of now those measures have been largely unsuccessful."

The decision in the Bergel and Stock case is reported at 130 United States Patent Quarterly 206.

The other two cases in which the Court of Customs and Patent Appeals eased the burdens of patent applicants in drug cases involved inventions of C. P. Krimmel and R. M. Dodson.

The Krimmel invention dealt with new glycosides, such as 1, 4-dihydro-1-(β-hydroxethyl)-2-hydroxymethyl-4-oxo-5-pyridyl β-D-glucopyranoside.

Here, too, the Patent Office relied solely on the ground of lack of

*Richards and Cifelli, Newark 2, New Jersey

utility for rejecting the claims. The pertinent part of the application as regards utility is contained in the following language:

"The compositions of the present invention can advantageously be employed in pharmaceutical applications, because they are easily manufactured substances, of substantial water solubility, which exhibit certain of the useful properties of the adrenocortical hormones. Thus, they are anti-inflammatory agents, as shown by their effectiveness in treating inflammation of the iris. Likewise, they also resemble cortisone and hydrocortisone in producing a decrease in vascular permeability, by increasing the resistance of the vascular wall to injury. The compositions herein claimed are also anti-bacterial agents, and can specifically be employed in producing an inhibition of the growth of Bacillus subtilis."

The Patent Office required clear and convincing proof that the composition is safe, effective and reliable on human beings for all the therapeutic effects set forth in the specification. The Patent Office noted that no test on human beings had been submitted and ruled that experimentation with animals was insufficient.

The patent applicant submitted an affidavit of V.A. Drill, a physiologist and physician who has Ph.D. and M.D. degrees and who was the director of biological research for G. D. Searle & Company, of Chicago. The affidavit described the evaluation of two of the compounds for their effectiveness in preventing iritis in rabbits, among other things. However, the Patent Examiner, being of the opinion that the "pharmaceutical applications" described in the specification clearly relate to the medical treatment of human beings, ruled that the tests on rabbits could not be accepted.

The court stated the issue in the following language:

". . . The issue . . . is whether a test restricted to a laboratory animal is sufficient to satisfy the utility requirement of the statute when a patent application discloses that claimed compounds are useful in the treatment of a condition which can occur both in man and in lower animals, and it is agreed that the disclosure does not exclude the treatment of man. . . ."

In ruling in favor of the patent applicant, the court noted that the term "pharmaceutical applications" neither excludes the human body nor expressly includes it. In doing so it rejected the argument of the Patent Office that the term would naturally suggest use on human beings and that preparations which are intended for use on lower animals are usually characterized as *veterinary* preparations. The court pointed out that there was no authority which had been presented to it in substantiation of the Patent Office position; and it found that the standard dictionaries do not make the distinction which the Patent Office made.

The court showed that it took a balanced view of the practicalities of the situation when it stated as follows:

"We wish to point out that this court is aware of the common practice of using 'experimental animals' in considerable variety for the evaluation of chemical compounds for possible pharmaceutical applications prior to clinical testing on humans. It is also our understanding that a demonstration that a compound has desirable or beneficial properties in the prevention, alleviation, or cure of some disease or manifestation of a disease in experimental animals does not necessarily mean that the compound will have the same properties when used with humans. With this information in mind, we hold that when an applicant for a patent has alleged in his patent application that a new and unobvious chemical compound exhibits some useful pharmaceutical property and when this property has been established by statistically significant tests with 'standard experimental animals,' sufficient statutory utility for the compounds has been presented. By 'standard experimental animals,' we mean whatever animal is usually used by those skilled in the art to establish the particular pharmaceutical application in question. These may be mice in one case, rabbits in another, chickens in another, and monkeys in another."

The court appears to have ruled the way it did because of its firm conviction that anyone who teaches the public that a compound exhibits some desirable pharmaceutical property in a standard experimental animal has made a significant and useful contribution to the art, even though it may eventually appear that the compound is without value in the treatment of humans.

The opinion in the Krimmel case is reported at 130 USPQ 215.

The Dodson case involved a patent application dealing with 1-aryl-3-hydroxypropyl sulfones and a process for making them.

Here, too, the only ground of rejection by the Patent Office was that the compounds lack a sufficient disclosure of utility. In this connection the application gave the utility of the compounds in the following language:

"The compounds of this invention are useful for the relief of conditions inimical to the well-being of the animal body. Specifically, the subject compounds manifest noticeable anti-iritic properties.

. . . The compounds may be therapeutically administered in solid form as tablets or capsules; dissolved in aqueous media, they may be given parenterally."

Here, too, an affidavit of Victor A. Drill (as in the Krimmel case), was filed. It showed that one of the compounds possessed anti-inflammatory activity, that is, the prevention of iritis in rats. Here, too, the affidavit was rejected because it only involved tests on rabbits rather than on human beings.

In the Krimmel case, it will be recalled, it was the position of the Patent Office that the term "pharmaceutical preparations" implied use of the compounds in the treatment of man; whereas, here it was the position of the Patent Office that "relief of conditions inimical to the well-being of the animal body" meant compounds to treat iritis in man.

The court, however, ruled against the Patent Office, failing to see any distinction between this case and the Krimmel case.

The opinion of the court in the Dodson case is reported at 130 USPQ 224.

In conclusion, it will be seen that under the most recent decisions of the C.C.P.A. a way is clear to avoid having to prove utility by clinical data in many cases, and that is simply to be sure that the application contains a disclosure of utility which although it may apply to human beings *also* applies to lower ani-

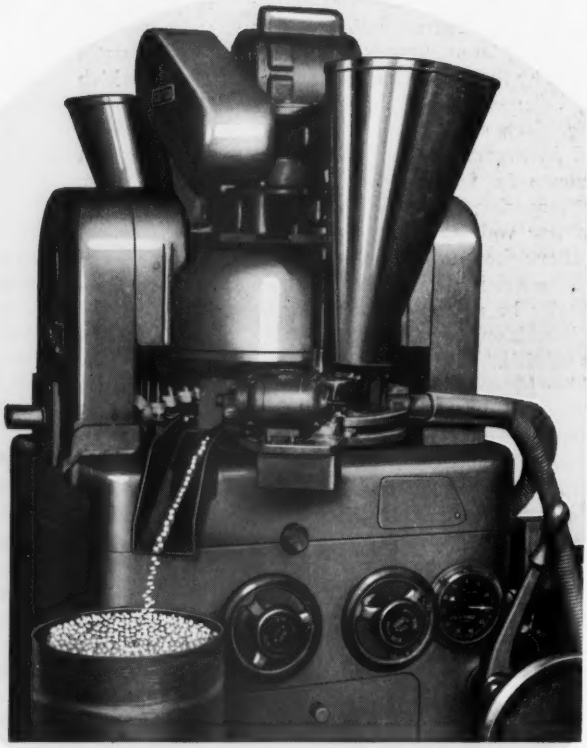
(*Continued on page 508*)

TABLET DIRECT FROM POWDERS—

skip granulation and slugging—boost production speeds with

COLTON PATENTED INDUCED DIE FEED*

ON COLTON ROTARY PRESSES



Three years of development and hundreds of individual test runs with various powdered compounds of widely varying characteristics have proved that in 90% of such applications, Colton Patented Induced Die Feed produces acceptable tablets directly from powders.

Already, most pharmaceutical companies are realizing substantial savings through the elimination of slugging and granulating preliminary to tableting and are successfully tableting directly from powders by means of Colton Patented Induced Die Feed. Production speed increases ranging up to 150% have been reported to us.

As a bonus, Colton Patented Induced Die Feed offers excellent natural blending and mixing of the powder ingredients, assuring constant suspension of the fine particles throughout the mixture, superior elegance in the tablet and faster disintegration.

The highly successful application of Colton Patented Induced Die Feed in big volume tableting operations and the success of our tests over a wide range of compounds suggests that the same attractive savings can probably be accomplished in your company's tableting operations.

Colton Patented Induced Die Feed is available for all Colton Rotary Presses, either new or now in use. Please write for complete information.

**Patent No. 2,984,267*

ARTHUR COLTON COMPANY
DIVISION OF SNYDER CORPORATION
3526 E. LAFAYETTE • DETROIT 7, MICHIGAN

Management Forum

BY FRANCIS CHILSON, Sc.D.
PROFESSIONAL ENGINEER

No More Work

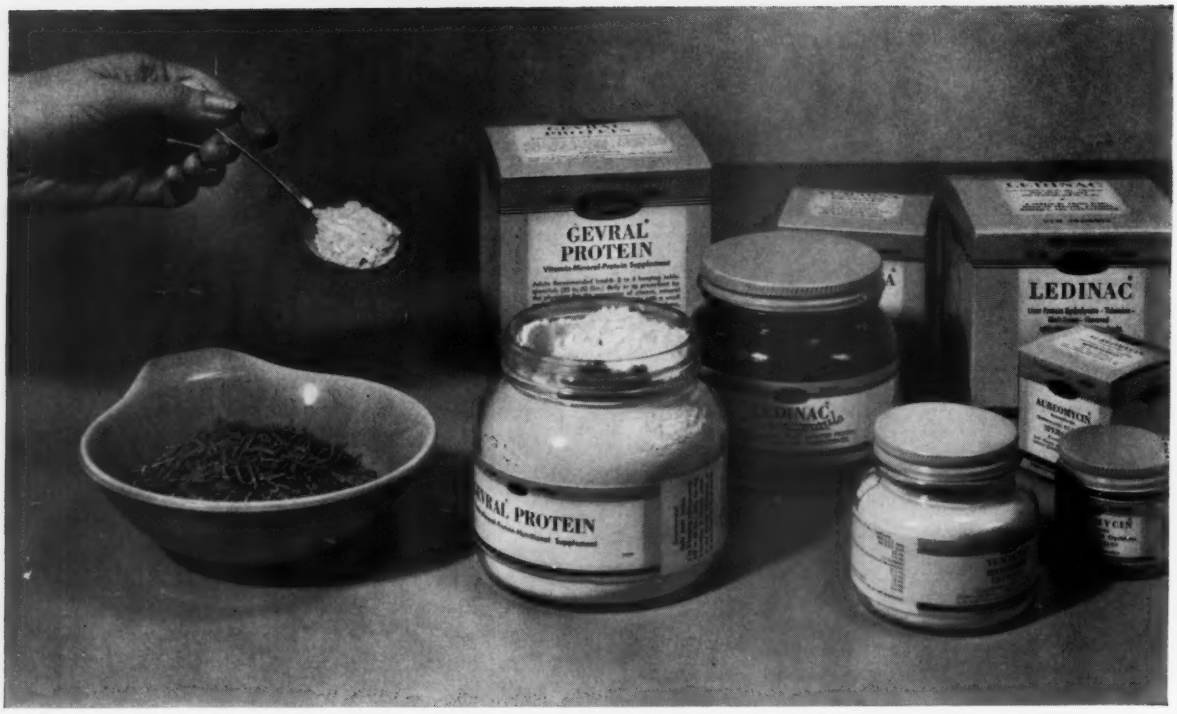
A recent study shows that, in 1900, 30 per cent of the national work force consisted of nonproductive workers, whereas today the figure is 60 per cent and steadily gaining. This study, known as "Consumers of Abundance," was made for one of the economic groups established by the Fund for the Republic. As a result of mechanization—now known as automation—the amount of work a productive worker can perform with appropriate tools has increased enormously, while the number of men required to service these tools and to sell the increasing product from them, likewise has increased enormously. Increasing too by geometric progression has been the number of parasitic state and federal employees and bureaucrats necessitated by income taxes and steadily increasing governmental controls and red tape.

Because of the speed with which automation is progressing in many industries, technological unemployment is on the increase. It is a condition with which we shall have to deal for many years. The problem is further complicated by the hundreds of thousands of young people who quit school and look for jobs every year. We can't absorb all these young people in the Army; in Peace Corps or Youth Conservation Corps; we must find a way to provide challenging jobs for the youngsters, and at the same time a method of absorbing rapidly the technologically unemployed.

If this job is left to the government, the problem will never be solved and the economy will be saddled with the biggest and costliest boondoggle in the history of man. Industry can and must solve this problem if it is to remain free and we are all to remain free. But industry must develop far more foresighted industrial statesmen than we have now, and it must have the guts to extend credits to foreign countries beyond any we have known in the past. More foreign trade is the answer: double, triple, quadruple what we now are doing. And we must train an army of salesmen and technicians in foreign languages and customs to exploit the opportunities that exist in all foreign countries. The world is hungry for what we can make.

But this does not mean we must make all export goods here. In view of foreign tariffs and the desire of foreign countries to develop their own industries, it will be necessary to continue and to multiply the manufacture of American goods in foreign countries and to employ foreign capital as well as our own in that enterprise. The question arises: How can such a program increase jobs here? It does because the home plants must supply components—intermediates, raw materials and semi-finished products which are not now and in some cases may never be obtainable in many foreign countries. Dividends earned abroad contribute to total profits and subsidize research and development, which in turn provide new products for this country and abroad and new jobs. A number of companies in the drug and cosmetic industries sell as much as a third of their volume abroad and, if foreign business were cut off, extensive unemployment would instantly occur.

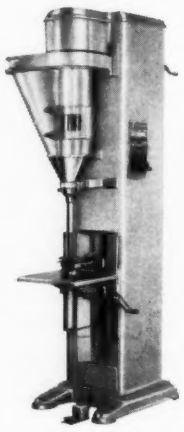
Another thing—we must develop Alaska. This huge, rich domain has in the past been exploited as a private chattel by a few big corporations. But that's our new frontier. That's the place for our youth. Alaska offers illimitable opportunities to young men and women with vision, guts and persistence. Alaska has never had the publicity it deserves and most of us are almost totally ignorant of its potential. Hitherto it has been merely a blank space in the upper left-hand corner of our geography books. We know it as a place full of ice, eskimos, polar bears and mosquitos. I know several young men who went up there after the war and made good. One I talked to recently had come home on a vacation but he could hardly wait until he got back. I think perhaps it might be suggested to President Kennedy that it would be a good thing to cultivate our own back yard before we get so all-fired steamed up about developing remote alien peoples and lands.



Lederle looks to FMC Auger Fillers for critical accuracy in drug packaging

Accuracy of fill becomes a vital consideration when the products being handled are valuable drugs such as aureomycin or complex food supplements such as Ledinac or Gevral Protein. Lederle Laboratories depends upon FMC Auger Fillers to maintain consistently accurate fill of these and many other products. In their plant at Pearl River, New York, Lederle uses six versatile FMC Auger Fillers for accurate packaging of a diversified line of drug and pharmaceutical products.

As with Lederle, many other drug manufacturers also have found that FMC Auger Fillers have the accuracy plus the versatility to successfully handle even the most varied product mix. • The semi-automatic EG-1 shown here can be equipped with four filling methods (cam volumetric, packing, gross weight and volumetric combined with vacuum) for both tight and loose fills. As a result, this one unit handles powders, granules and certain pastes in an almost limitless variety of containers. Changeover from one product or container to another is a matter of minutes, sometimes just seconds. So it's a perfect machine for short and medium production runs in large or small plants. • Many other FMC models—semi-automatic and automatic alike—are available to satisfy unusual requirements for accuracy of fill or type of packaging in both rigid and flexible containers at speeds up to 140 per minute.



FMC CORPORATION
PACKAGING MACHINERY DIVISION
Stokes & Smith Plant: 4912 Summerdale Avenue, Philadelphia 24, Pa.

For the full story on the FMC line of Auger Fillers, write for your copy of Bulletin P-811.

Engineering Thinking

I often marvel at the propensity of so many engineers—the inexperienced ones particularly—for considering engineering factors without reference to human values. For instance, in a recent technical publication, a young engineer came up with the not so startling information that a laborer using only his muscles can produce about one horse power of energy in ten hours or one kilowatt-hour or its equivalent in 13½ hours. At a minimum wage rate of $1.00 per hour, the power cost is thus $13.00 per kilowatt-hour —a hell of a high rate for power, which can be bought in most places for about 1½ cents per kwh. It's a shame to spend all that money for power, of course, when electrical energy can be bought for so little. It's too damned bad a kilowatt hour does not know what to do or how to do it.

Let's take a common example of muscle power: loading pallets with cases of finished goods at the end of a production line. The cases must be placed in a precise position, which changes as each case is added to the load. So what's the most important, the power utilized or the minimal intelligence required to position the cases in accord with a definite rote? Of course automatic case loaders can be used when volume warrants, and these are operated by electrical energy. But isn't it a pity that kilowatts of energy won't do your bidding when you holler at them?

Stockholders Talk Back

At a recent meeting of stockholders of one of the big drug companies, a stockholder had the nerve to get up and ask how come stockholders get less dividends when earnings go down, but management continues to get bonuses, stock options, etc.? The nerve of some people! Bad form, what?

Eye Care

One of the most important new fringe benefits that many companies are providing for their people is regular eye examinations. Some companies provide free glasses when they are needed. In these days of increasing speed of mechanical equipment, particularly packaging equipment, it is important that operators' eyes be in good condition. Good eyesight is particularly important for the inspection of labels and other printed matter, ampules and the like. Environmental color is important too. An operator once thanked me because she credited me with having had the walls of the packaging department changed from white to green. She said she now realized why her eyes had hurt every night when she finished work, because they no longer hurt after the color was changed to green. Color environment—walls, machinery, floors, and ceilings—is a very important factor in relieving eyestrain and decreasing fatigue. Artificial lighting is equally important. I have been in plants where the lighting was so poor that everybody suffered from eyestrain.

Political Spending

The boy scout in the White House and his little brother Bobby have had quite a time beating the drums about the tendency of Americans to be concerned more with material things and self-indulgence than they are with national and international "do-goodism." We're supposed to pull in our belts, harden ourselves up, do with less and give more, when all we've got out of the hundred billion dollars we have given away since the war is the dislike and mistrust of the entire Western World. We subsidized the communists. I wonder what Pappa Joe thinks when he hears his sons spouting off in this manner. How much of the 200 million he is reputed to have accumulated has he given the world outside his own family—all of whom he made rich? It's all very easy to tell other people not to be so crass about money when your old man is rich enough to give you a million bucks on your twenty-first birthday.

To the Kennedys, when they think of philanthropy, "G.O.P." means "Give Other People's."

Odds And Ends

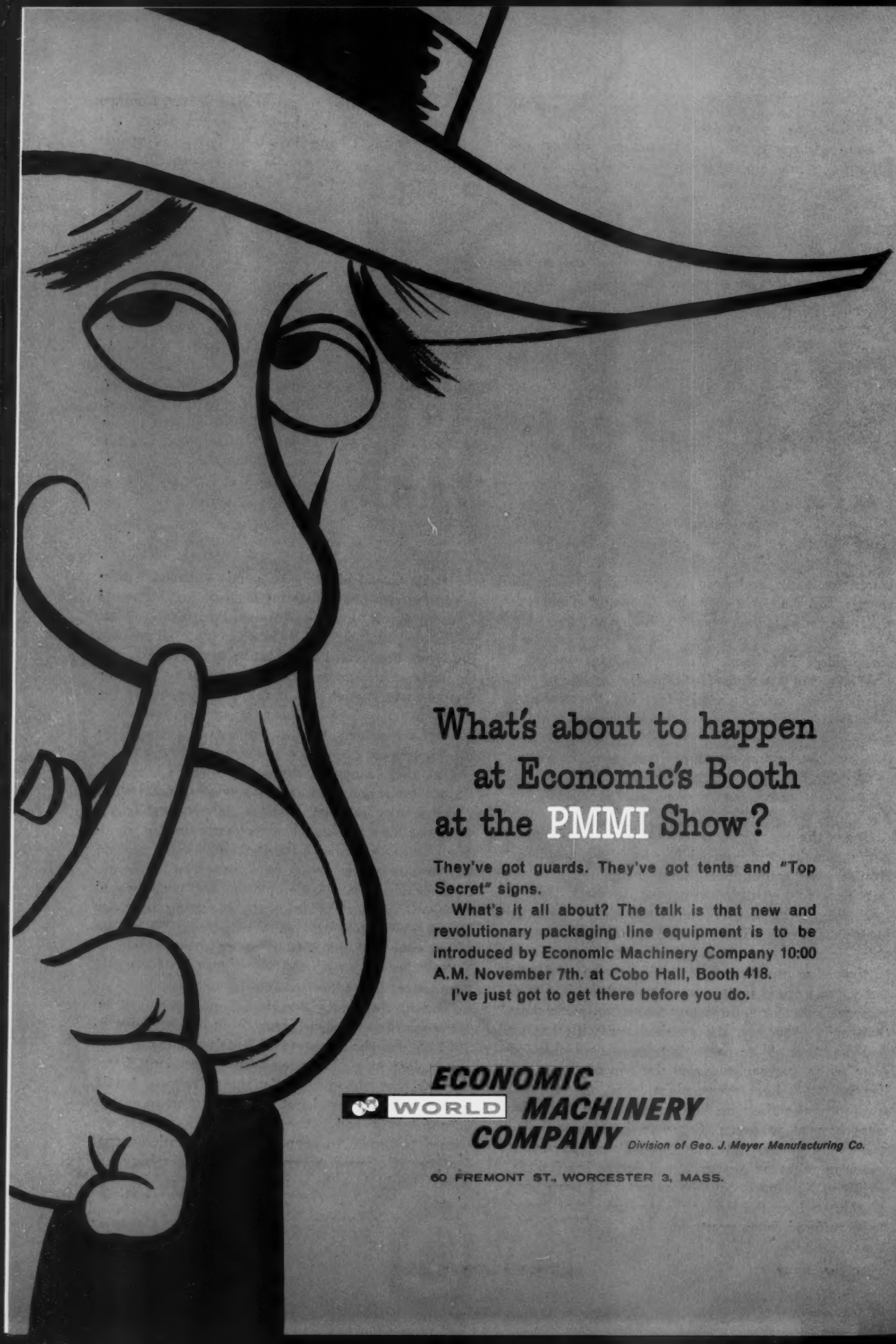
Goslin Birmingham Mfg. Co., Birmingham, Ala., are offering a vertical cone mixer which contains a centrally located lifting helix partly enclosed within a vertical cylinder. Material loaded into the vessel from the top is forced up through the centrally located channel by the helix. When the material reaches the top of the helix, turbine blades knock it back into the body of the mixer. This mixer can be used for powders and liquids and it can be equipped with a steam jacket and constructed for vacuum operation. It discharges from the bottom and is available in capacities from 2 to 185 cubic feet.

Link Belt Company, Prudential Plaza, Chicago 1, Ill., are offering a bio-filtration sewage disposal plant which is very compact and, it is claimed, just as efficient as a big city plant. It is recommended for use in small communities and for factories located beyond city sewage systems where local laws prohibit the use of septic tanks. A plant employing 500 people could be equipped with a complete operating unit for $60.00 per capita. A plant employing 50 people would have to spend $240.00 per capita.

Committees and Ideas

"Brown University President Emeritus Henry M. Wriston, 71, a lifelong group-think catalyst who in 1954 chaired the Secretary of State's Public Committee on Personnel, last year headed President Eisenhower's blue-ribbon Commission on National Goals, and is currently president of the goals commission's administering body, the American Assembly, returned to Brown to keynote an undergraduate conference. His opening gambit: 'No one in his right mind should look to a committee to produce new ideas.'

Time Magazine



What's about to happen at Economic's Booth at the PMMI Show?

They've got guards. They've got tents and "Top Secret" signs.

What's it all about? The talk is that new and revolutionary packaging line equipment is to be introduced by Economic Machinery Company 10:00 A.M. November 7th. at Cobo Hall, Booth 418.

I've just got to get there before you do.

ECONOMIC WORLD MACHINERY COMPANY *Division of Geo. J. Meyer Manufacturing Co.*

60 FREMONT ST., WORCESTER 3, MASS.

Prediction

The Research Institute of America has come up with some clairvoyant predictions: By 1970 personal income will rise by 60 per cent; suburbs will increase in size; conjugal duties will continue popular, with a resultant addition of millions to the population; people will buy more of everything—cars, planes, boats, houses, tape recorders, luxury foods, drugs and cosmetics; they'll travel all over from Hell to Breakfast in increasing numbers; $7,500 family incomes will be common; 50 per cent of the products people will buy in 1970 are not yet on the drawing boards.

I can add a few to that: income taxes will be higher, politics rottener; people will continue to enjoy killing themselves with cars, planes, boats and booze; the national debt will be a trillion dollars; television in color will supplant radio, and the programs will be worse than they are now. And if these things don't happen it will mean that we've all gone to hell in a handbasket propelled by the H bomb.

Good Ad

Some time ago an ad appeared in the *Wall Street Journal* which I thought particularly good. I will repeat only part of it:

"Here are 3 reasons why a company may be racing its advertising motor without moving the wheels:

"(1) *Somebody wisely concentrates on cost cutting* . . . but not so wisely forgets that the best cost-cutting method is more sales.

"(2) *Somebody prefers not to spend dollars until 'later,'* preferring to wait. Isn't that like telling the sales staff to go on vacation when customers are acting tough?

"(3) *Somebody wants more time to think.* Well, who can object to thinking? But you know how easy it is to fall prey to inertia disguised as deliberation.

"Why not resolve all 3 reasons into action that is *always* timely? Nudge all your salesmen into making more creative sales calls every day. And be sure your advertising program is both leading the way and backing them up."

The Common Market

From a variety of sources comes testimony of the value of export business to our economy as a whole and in particular to the pharmaceutical business. Several such companies have reported that more than 25 per cent of their annual profits come from abroad. In the endeavor to develop foreign business the cosmetic industry lags far behind the pharmaceutical industry. The Common Market is creating a market for all sorts of commodities that will soon match if not exceed our own home market. There is no doubt whatever in the minds of Europeans that England and all the other countries of the so-called "Outer Seven" will soon join forces with the original members of the Common Market. Already trade of all the countries in the original group has increased far beyond expectations.

Now is the time to get started in the Common Market; either by establishing branch plants in it or by forming partnerships with foreign companies already established there. We have been riding the gravy train for years. Following the end of the war, we supplied the world—on our own terms. The picnic is over and if we are not to be locked out of our most profitable market we had better get our foot in the door while it is still open.

Magnetic Rails

Magnetic rails can be put to good use in handling aerosol cans if you are following the immersion method of testing for leakers after filling. The testing can be done continuously after sealing by using a nonmagnetic stainless steel belt over magnetic support rails. The cans will stick to the belt as they are carried through the immersion tank but will not stick so much that they cannot be picked off the belt. This is an old trick of food canners who had to pasteurize their filled cans after filling and sealing. Magnetic rails are made by Eriez Manufacturing Co., Erie 6, Pa.

Portable Mixers

Barrington's air-driven portable high-speed mixers for laboratory, pilot, or small batch applications are recommended where highly inflammable or explosive materials need to be mixed, emulsified, dispersed or homogenized. Capacities from 3 to 25 gallons can be handled. *Barrington Industries Inc., 185 Union Ave., Providence 9, R. I.*

Hand Pumps

Hand pumps, molded of polyvinyl chloride with hypalon and polyethylene valves, are self-priming, leakproof and resistant to acids, oils, alkalis, inorganic salt solutions and other fluids. *Beckson Manufacturing, Inc., P.O. Box 3336, Bridgeport, Conn.*

Pricing Machine

A compact, portable pricing machine uses self-sticking labels in three sizes and adjusts to accomodate three different label sizes. Three different pricing assemblies are also available. *Paramount Paper Products Company, Omaha, Nebraska.*

Polyester Belts

Oriented polyester belts for power transmission, conveying, and instrumentation have joints as strong and flexible as the basic belt material. *International Ultrasonics, Inc., Cranford, N. J.*

Package Vibrator

Model V30A package vibrator with adjustable speed for settling, compacting and removing air from powdered and granular products, has side guides to prevent bulging. *George H. Fry Company, 42 E. Second St., Mineola, N. Y.*

Aerosol packagers use Sanitairs to air-clean containers as a safeguard against valve failures.

Most Positive Air-Cleaning Action Assured at All Speeds

With the thorough cleaning action of the Sanitair you can be *absolutely sure*. Removes all loose foreign matter from new containers:

A—Containers ARE INVERTED *before* air tubes engage the containers.
B—Containers ARE INVERTED *when they are blasted* by compressed air.
C—Containers are still INVERTED *after* the air tubes are completely withdrawn.

Only in an inverted position are the best possible air-cleaning results possible. This is just one of several good reasons why leading companies use a dozen or more Sanitair units in a single plant. For complete details, write for the "Sanitair Bulletin."

U. S. BOTTLERS MACHINERY CO.

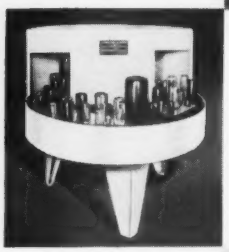
4013 N. ROCKWELL ST., CHICAGO 18, ILLINOIS

BOSTON - NEW YORK - PHILADELPHIA - LOS ANGELES - SAN FRANCISCO - SEATTLE - HOUSTON
DENVER - PORTLAND, ORE. - KANSAS CITY - TUCSON - JACKSON, MISS. - ATLANTA - MONTREAL
TORONTO - VANCOUVER - WINNIPEG - SANTIAGO - SAO PAULO - HONOLULU

US

For Air Cleaning

containers of any size or type. The E-Z Air Cleaner is ideal for semi-automatic packaging operations. Small, portable. Containers are inverted over air valves, two at a time, up to 40 per min. Fast, efficient. Write for the "E-Z Bulletin."



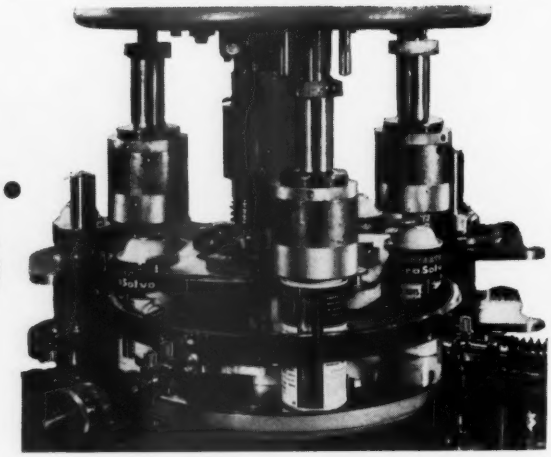
For Rinsing

with cold or hot water or steam. Handles any size bottle or jar. Rinses inside and outside of container if desired. Bottle Rest protects against neck-chipping. Operation is simple, effective. Write for "Rotary Rinser Bulletin."

Feed Containers

to your packaging line at a steadier pace and a lot cheaper! Just dump 'em on, and let the Feeder take charge. Handles any shape or size container. Pays for itself quickly. Write for the "Feeder Bulletin."

CRIMPING OVER 1,000,000 CANS... and going STRONG



A recent customer reports the new CAPEM Automatic Rotary Crimper for Aerosol Valves delivers more than a million cans without a sign of jaw or plunger wear or misalignment. The crimper assembly holds well within crimping tolerance throughout the entire run.

The machine features a completely mechanical operation . . . no *air* required. During the crimping operation, a mechanical plunger drops over the valve and expands 6 precision tooled segments for crimping contact. When the plunger retracts, the segments snap back into position for positive release of the can *before top pressure is released*. The crimping operation is further protected by Consolidated's built-in accuracy of container handling and centering, with automatic pre-seating of unseated valves.

Crimper jaws are adjustable to provide depth of crimp desired. The machine, with adjustable turret, can be easily set for proper crimp height and top pressure.

The Model C-4-SC, 4-spindle operation shown, will handle any size can with standard 1" valve at speeds of 110 to 120 containers a minute. Faster six and eight spindle machines are available.

For complete information, write Sales Manager

CONSOLIDATED PACKAGING MACHINERY CORPORATION

A Subsidiary of International Paper Company

1400 WEST AVENUE • • BUFFALO 13, NEW YORK

SEE THIS NEW **CAPEM** AUTOMATIC ROTARY CRIMPER AT THE PACKAGING SHOW NOVEMBER 7 to 10 DETROIT

Pressure Tube Filter

Flex-tube filter by Filtomor has a braided wire or plastic tube, which, when pressure is applied, elongates and shrinks in diameter. When pressure is removed, it returns to its original diameter and length with each individual strand moving independently to clear surface of the cake. *Filtomor, Inc., Montclair, N. J.*

Flow Alarm

New flow indicator, 1885-CDA Flo-Eye, features an adjustable alarm mounted in a weatherproof housing. It is made of brass and has a plug that rises and falls with changes in the flow rate, and operates against an adjustable alarm switch. *Schutte and Koerting Company, Instrument Division, Cornwells Heights, Bucks County, Penna.*

Shut Off Damper

Actuated by an air cylinder, damper has a closing time of less than one second and is available in 7 sizes. *American SF Products, Inc., 701 Palisade Ave., Englewood Cliffs, N. J.*

1400 Series Control Valves

A new line of compact valves for regulating the flow of small streams of air, water, steam or chemical solutions includes 5 models. *Valve Division, Minneapolis-Honeywell Regulator Company, Fort Washington, Penna.*

Box Bander

A box bander that eliminates the need for overwraps and does away with hand operation is fully automatic and offers continuous feeding. *Halm Instrument Company, Inc., Glen Head Rd., Glen Head, L. I., N. Y.*

Spinner Flask for Suspended Cultures

Cells are suspended by the rotation of a Teflon covered magnetic stirring bar attached to a stainless steel fishing swivel that can be raised and lowered by a stainless steel shaft. Three sizes are available. *Kontes Glass Company, Vineland, N. J.*

Tramp Metal Detector

Self-contained, portable tramp metal detector detects and rejects tablets, pills or capsules containing minute amounts of metal particles. It can be rolled up to a tablet press and will handle tablets up to 5/8 of an inch in diameter at speeds up to 4,800 tablets per minute. *Arthur Colton Company, 3400 E. Lafayette, Detroit 7, Mich.*

Mixer Adapter

Barrington's standard portable and stationary mixers now come with stator sleeves for closed turbine operation. Sleeves can be removed for open turbine operation. *Barrington Industries, Inc., 185 Union Ave., Providence 9, R. I.*

Mark II Press

Label and tape press by Columbia, prints, die cuts, removes waste and rewinds pressure sensitive labels or tape in one completely automatic operation. It turns out up to 150,000 labels per hour and produces any copy including halftones. *Columbia Label Corp., Dept. 134,4755 N. Talman Ave., Chicago 25, Ill.*

Packaging Machine

One cycle for forming the package, feeding in the product and sealing the sides and ends is all that is required in a new form, fill and seal machine. Light, medium or heavy products in single or multiple packs are packaged in polyethylene sheet film. *Pratt Manufacturing Corporation, Milwaukee, Wis.*

Vacuum Breakers

Corrosion resistant vacuum breakers for chemical processes are spring loaded for adjustable relief settings over a complete vacuum range. *Chem Flow Corporation, 120 Paterson Ave., Little Falls, N. J.*

Electric Vibrator

Designed for continuous or intermittant service on light duty application, the MC-2 electric vibrator for use on small bins, chutes and hoppers, features an external mechanical air gap adjustment which changes vibration intensity with the turn of a bolt. *The Cleveland Vibrator Company, 2828 Clinton Ave., Cleveland 13, Ohio.*

Ball Valve

New Con-O-Sphere valve is a sealing capsule of conical shaped Teflon molded around the ball that controls the on-off action of the valve. Its handle stem and its sealing surfaces are molded as one unit. *W-K-M Division, ACF Industries, Inc., P.P. Box 2117, Houston 1, Texas.*

Tablet and Capsule Counting and Filling

A machine to handle uncoated tablets, coated tablets, capsules, capsule-shaped tablets and pills without product change parts, requires no operator. Bottles are unscrambled and fed in parallel lines at the rear of the machine, and then travel to the filling spouts. Bottles are indexed automatically. *The Lakso Company, Inc., Fitchburg, Mass.*

Formed Container Packaging

Machine for automatically packaging products in rigid plastic formed containers dispenses, fills and seals formed containers of all shapes. *Formed Container Corporation, Orangeburg, N. Y.*

Stainless Steel Filters

Filters designed of sintered, corrugated, woven wire mesh can be installed in intricate fluid handling systems where filtration of optimum efficiency is important. *Aircraft Porous Media, Inc., Pall Corporation, Glen Cove, N. Y.*

Famous remedy continues to thrive

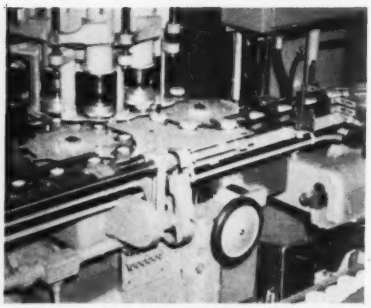
Advertisement

NOXZEMA KEEPS PACE WITH MODERN METHODS

- Up-to-date merchandising and machinery feature success
- Pneumatic equipment plays important role

Born in a back room of a Baltimore pharmacy in 1914, Noxzema has grown in stature so that today, to millions of Americans it is a symbol of skin care and skin comfort. Highly competent, imaginative merchandising and the maintenance of maximum manufacturing efficiency through the use of up-to-date machinery have helped keep Noxzema a front runner in its field for over 35 years.

Noxzema's packaging facilities are a notable example of the company's progressive type of operation. In readying the Noxzema jar for market the knurled, turn-on closures are uniformly applied by Pneumatic Rotary Capping machines which keep the containers moving smoothly at speeds up to 120 units per minute. The capped jars then move into the intakes of Pneumatic Duplex Labelers which simultaneously apply front and back labels, accurately registered and put on to stay.

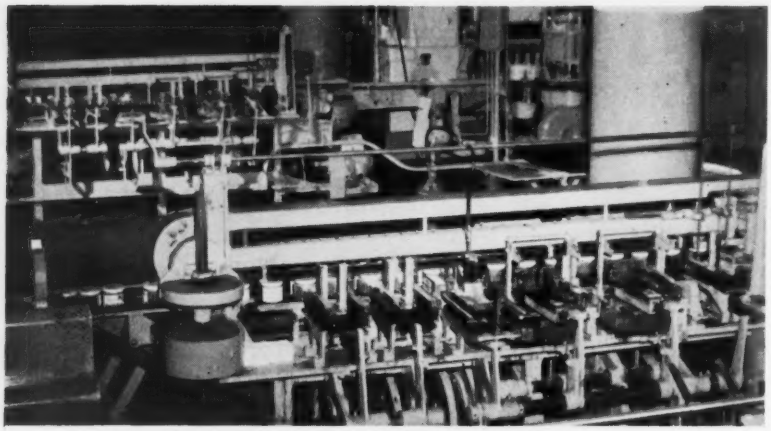


8-head Pneumacap machine in operation at plant of Bunting Chemical Company.

Noxzema's new High Noon sun tan lotion is packaged in attractive plastic tubes. The tubes are filled and sealed at high speeds on a machine built by Pneumatic's Carbert Manufacturing Company Division. Another example of Noxzema's policy of keeping pace with the last word in packaging.

In its part of Noxzema's packaging processing, Pneumatic's modern equipment, built to fine precision standards with all the latest refinements in design, delivers the same "lower cost per container" operation which has attracted America's leading producers of bottled and packaged goods. Pneumatic could well help you to better, more economical bottling or packaging, too.

PNEUMATIC SCALE CORPORATION, LTD., 70 Newport Avenue, Quincy 71, Mass. Sales Offices: *New York; Chicago; Dallas; Rochester.* Agents: *Fred Todt Company at Los Angeles, San Francisco and Seattle. Rockwell Pneumatic Scale Ltd., Edgware Road, London, N.W. 2, England; O.R.M.A., Paris 8, France; Carbert Manufacturing Co., Division, Cambridge, Mass.; Delamere & Williams Co., Ltd., Toronto.*



Front and back labels are applied simultaneously to Noxzema skin cream jars by duplex McDonald-type labeling units.

PNEUMATIC

with STOKES high-speed tabletting presses

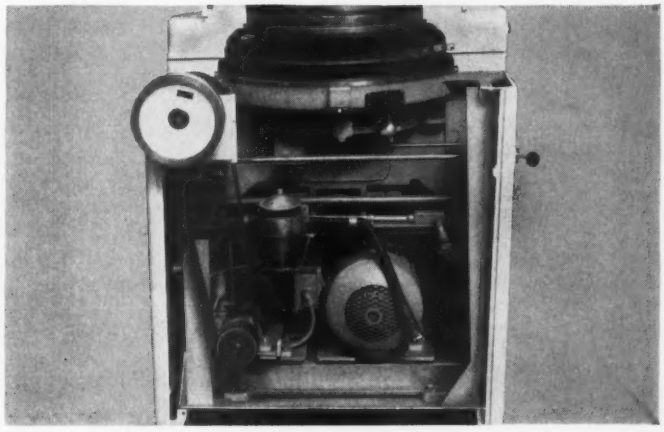
Millions regularly depend on the fast, gentle relief afforded by tasty TUMS. And the number of TUMS fans is growing every day. To meet this ever increasing demand, Lewis-Howe Company has equipped its newly expanded facility for *complete automatic operation* . . . from formulating and tabletting to sorting and packaging.

Pacesetters in this new production facility are Stokes High-Speed Rotary Tabletting Machines. Creating new standards in precision, compactness, and simplified operation, these high-speed presses produce tablets of exceptional hardness and uniformity at extremely high production rates. Rejects are virtually eliminated.

The Stokes Model 533 Press is proving particularly well suited to automatic, high-speed production. Lewis-Howe personnel find the 533 easy to operate . . . all controls are operator-oriented, and adjustments can be made while the machine is running. Hydraulic overload protection and automatic self-lubrication minimize maintenance and provide years of trouble-free operation.

These and the many other advanced features of Stokes high-speed tabletting machines can bring new economies to your tabletting operation. To get complete technical details and prompt application assistance, consult Stokes Advisory Service. For more complete performance data on the Stokes Model 533, write for Bulletin 110.

To simplify set-up and operation on the Stokes high-speed Model 533, all controls and indicators are grouped on a single panel.



Drive for the Model 533 is contained in the base of the machine, readily accessible for servicing, and saving up to 50% floor space.

pharmaceutical equipment division

F. J. STOKES CORPORATION — STOKES

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PATENTS AND TRADEMARKS

(*Continued from page 495*)

mals. It is gratifying to note in 1961 that the suggestion made by the writer in the July, 1959 issue of this Journal has been validated by the court which counts in patent matters. Reference is made to the following suggestion taken from the 1959 article:

"In many cases it is possible to avoid the requirement of showing utility by clinical results simply by avoiding any claim or disclosure in the patent application that the compounds are to be used on human beings. While this may not always be possible, for one reason or another, observations lead the writer to the conclusion that many cases which could not be successfully prosecuted would have been saved if this point had been kept in mind."

Who Should Own Patents Obtained as a Result of Federally Sponsored Research?

The question in the title of this section has provoked a lot of heat and, until recently, not very much light. Proponents of government ownership have charged, in Congress and out, that because the government pays the government should own the patent. Others, meaning industry and the patent profession, favor having industry own the patents with the government getting a non-exclusive royalty-free license.

Recently, a report which should go a long way in clarifying the matter has been issued by the Patent, Trademark and Copyright Foundation of The George Washington University, a non-profit organization.

The report was the work of three George Washington University faculty members, Dr. D. S. Watson, Professor of Economics, Dr. Harold F. Bright, Professor of Statistics, and Dr. Arthur E. Burns, Professor of Economics, the latter serving as consultant.

One thing the report does is indicate that the value of patented inventions obtained on the fruits of government-sponsored research has been much exaggerated. Also, not-too-surprisingly, the report concludes that the more or less hit or miss system presently followed is working reasonably well. Under this system the various federal agencies decide for themselves whether they will be satisfied merely with a license or whether they will require actual title. The Defense Department, for example, lets industry take the title but retains full accesss to the invention by license. The Atomic Energy Commission, on the other hand, is an example of an agency which takes actual title. In this connection, the AEC is required to do so by specific congressional legislation.

Some of the findings of the foundation are ex-

(*Continued on page 511*)

GC

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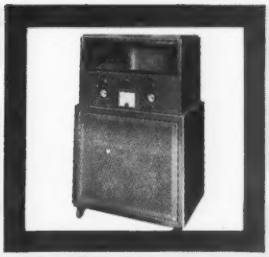
AMSCO Microbiological Equipment



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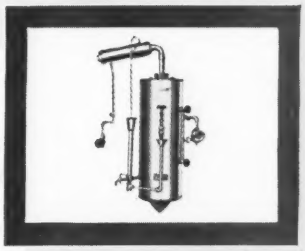

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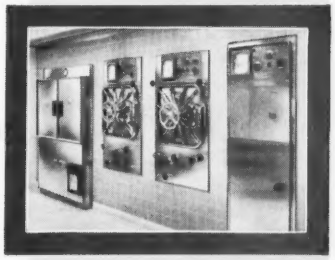

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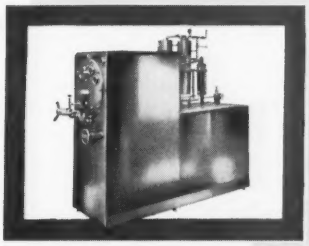

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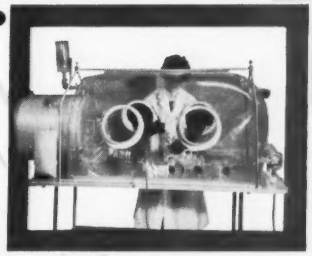

For good reason more and more universities, pharmaceuticals and industrials confidently specify AMSCO Freeze Dryers, Sterilizers, Water Stills and other specialized microbiological equipment. Each is designed and built to accomplish a specific job better more dependably . . and with less time and attention from the staff.

If you have a problem in the area of technical microbiological equipment, a letter to our Scientific and Industrial Department may lead to its economical resolution.

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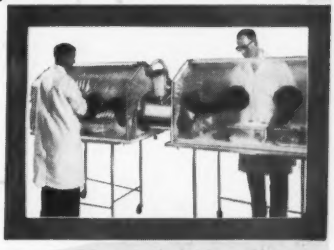

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Perfumer's Shelf

Essential Oils

The sophistication of essential oils is an ancient art, probably as ancient as the extraction of the aromatic or spice oils. Sophistication is practiced in the primary market among the growers or gatherers, by the middle men or shippers, and even by the importers and suppliers to modern industry.

In the primary market, where sophistication has been practiced for generations with some oils and aromatic products, a great deal of experience and knowledge is needed by the buyers who deal with these primary sources, not only to enable them to get a purer product, but to buy on a basis enabling them to resell it in the chain of distribution.

For instance, one knows how long musk has been treated by the native hunters in the Himalaya Mountains who obtain these precious pods. Since the musk pod has a highly nitrogenous odor, one of the favorite methods of sophistication, going back many years, was to inject a certain amount of liquid ammonia in this pod. Musk comes in a granular form and this leads to another favorite method of sophistication, slitting the bottom of the pod and inserting a certain amount of a very fine lead buckshot.

Another product that is often cited with musk, in the romantic history of perfume, is civit. This is a product that is gathered in the wild section of Ethiopia and is a glandular substance obtained from a particularly ferocious wildcat about four times the size of a domestic tomcat.

This evil-smelling substance is gathered in buffalo horns for export and among the very famous treatments to which it is subjected is the addition of a low-grade black petroleum substance somewhere near the viscosity of vasoline, or mashed, rotten bananas.

In spite of this artistic effort to improve nature at almost every step of the journey, all of these products for flavor and aromatic use have grown in volume, and it must be said, that to a major extent, most of the material which reaches the final consumer in the United States is worth just about what he pays for it.

And so, if a perfume manufacturer insists upon obtaining pure material, it is available, at a price. Manufacturers who put out cut-rate or very low priced products, are using aromatic substances simulating the pure material, and the consumer pays accordingly.

It has often been stated, that the world simply cannot supply a sufficient quantity of raw materials for flavors and fragrance to meet the commercial demand. This is particularly true of flavors, which are demanded by many industries. This means that chemical synthesis has been forced to fill in the gap.

However, occasionally sophistication of an oil will add a new odor or flavor note that will be preferred to the pure oil. For instance, there is a very large candy company abroad, entirely committed to an oil of poor quality. This oil was purchased when the company was very small and had very little money and was cutting corners in every possible way. It just so happened, that the off-flavor note of the compound gave an individualistic flavor appealing to certain people and caused a substantial market for that candy.

There is another case of what was once a well-known brand of olive oil. It was a rare person who would maintain that this was a pure, unblemished product. Nevertheless, it did have a large sale and a very consistent one with quite a number of people. One of the leading employees of this company resigned from the business one day to go with a competitor. However, he continued buying the olive oil of his old company and one day a friend who knew that this man was quite a gourmet said to him, "Why do you keep buying that olive oil when you know exactly what it is?" The gourmet answered, "Of course I know what it is and I know some of the things that are put into it." But, he said, "Nobody, anywhere in Italy, Spain, Sicily or Greece have been able to hit that particular delicious nutty flavor."

Perfume Compounds

Haarmann & Reimer is offering a new group of perfume compounds for various cosmetic and perfume applications. These include Jasmin 10 400A, a flower oil of the absolute type which will blend with other components; Lilac 10 315C, resembling flowering lilac and suitable for perfuming cosmetic preparations; Lily of the Valley 10 340C, which may be used as a component of perfumes and in cosmetics; Noblesse 10 299E, suitable for use in lubricating creams; Fleural C, for use in fantasy perfumes and suitable for inclusion in soaps; Aerosol perfume oil Nouvelle 10412 has been developed especially for use in hair lacquers; Eau de Cologne moderne 10 004E has a modern bouquet; Vertiflor C is suitable as a base for modern cream perfumes; Blues 10 029 SH is a shampoo perfume also suggested for use in bubble bath preparations; Bruyere 11 286 SH is intended for use in men's preparations; Fresh 11 426 is recommended for inclusion in white soaps.

PATENTS AND TRADEMARKS

(*Continued from page 508*)

tremely interesting. For one thing, of all of the 32,000 patents which have been assigned to private owners it seems that only 13 per cent have been put to commercial use and only one has actually been uncovered as being of real commercial importance. In contrast, between 55 per cent and 65 per cent of the inventions patented for industry in the ordinary course of business are used commercially, according to the report.

The report shows that it costs a lot of money for government-paid-for research to yield a patent. In the period from 1956 to 1959, the government obtained 32,000 patents based on federally-sponsored work out of a total of 527,000. In the same period, the federal government spent $37,000,000 for research and development, whereas private industry spent $33,000,000 during the same period. Stated otherwise, private industry obtained one patent for each $66,000 that it spends, whereas it costs the government well over $1,000,000 per patent. Put still another way, private industry's patent dollars went 17 times as far as those of the government.

Bufferin v. Buffagum

In a three to two decision (unusual for it) the Court of Customs and Patent Appeals recently upheld an opposition filed by Bristol Myers against the registration by Pharmaco of the mark BUFFAGUM as a trademark for chewing gum containing analgesics and antacids. The opposition was based on the well-known BUFFERIN trademark for antacid aspirin.

The majority of the court, noting that Bristol Myers was the prior user, felt that since the goods have the same antacid and analgesic characteristics and are likely to be sold to the same class of purchasers for therapeutic purposes, likelihood of confusion will result and therefore Bristol Myers was sustained. The court said it had grave doubts that the average purchaser of the inexpensive nonprescription items sold over the counters to mass purchasers would make fine distinctions as to the technical meaning of the word BUFFER. The court felt that since the marks contain the same number of letters as well as syllables with the first syllable BUFF identical in both marks, the similarity was great.

In a strong dissent it was pointed out that except for the common syllable BUFF the marks are otherwise quite different, and that the goods are specifically different. Bufferin is a medicinal tablet and Buffagum is a medicinal chewing gum. The dissenting opinion pointed out that the label on which BUFFAGUM appears states that it is for "upset stomach, gas, heart burn-due to acid indigestion." It was felt, according to the dissenting opinion, that the use of aspirin for the relief of pain is so well known that it could not be conceived that a user or purchaser would become so confused or mistaken or deceived that he would accept an antacid chewing gum "for upset stomach, gas and heart burn" instead of the desired aspirin product.

RECENT PATENTS

2,996,427—James G. Robson et al.—Anaesthetic Consisting of Nitrous Oxide and Halothane.

2,996,428—Organon, Inc.—Process for the Manufacture of Acth By CMC Chromatography.

2,996,432—Modern-Lab., Incorporated—Skin Treating Composition and Method.

2,996,501—Frank Peter Doyle et al.—Synthetic Penicillins.

2,996,502—Ormonoterapia Richter S.p.A.—6β-Methyl-Pregnane-3β, 5α, 17α-Triol-20-One.

2,996,504—Geigy Chemical Corporation—Morpholine Compounds.

2,996,506—Laboratoire Sapos—Piperazine Derivatives.

2,996,507—Abbott Labs.—Piperazine Compounds.

2,996,510—National Research Development Corporation—Quaternised Pyridine Aldoximes.

2,996,512—Crookes Labs., Limited—Therapeutic Derivatives of Aryl-Benzthiazoles.

2,996,522 — Schering Corporation — 6α-Fluoromethyl Allopregnanes.

2,996,524—Lasdon Foundation, Inc.—17α Lower Alkyl-2-Androsten-17β-OI.

2,997,470—Eli Lilly and Company—Lysergic Acid Amides.

2,997,471 — Bristol-Myers Company — Tetracycline Derivatives.

2,997,472 — Paul Adriaan J. Janssen — 1-(Aroylalkyl)-4-Arylpiperazines.

2,997,473—N. V. Nederlandsche Combinatie voor Chemische Industrie—New 2-Substituted Piperazine Derivatives with Central Stimulating Activity.

2,997,474 — Paul A. J. Janssen — 1-Aryl-ω-(4-Arylpiperazine) Alkanols.

2,997,475 — Hoffman-La Roche Inc. — 2-Hydroxy-2-Lower Alkyl-3-Lower Alkyl-9-10-Di(Lower Alkoxy)-1, 2, 3, 4, 6, 7-Hexahydro-11bH-Benzo[a]Quinolizines.

2,997,476 — Allen & Hanburys Limited — 1-Alkyl-4-Aminoquinaldinium Salts.

2,997,486 — Research Corporation — Antirachitic Substances.

2,997,488 — Organon, Inc. — 2-Methyl-19-Nor-Steroids.

2,997,489 — Syntex S. A. — 6-Chloro-16α-Hydroxy Steroids of the Pregnene Series.

2,998,349—Dr. Salsbury's Labs.—Vaccine Against Avian Respiratory Infection.

2,998,350—American Cyanamid Company Alcoholism Research Foundation—Article of Manufacture for the Treatment of Alcoholism.

2,998,420 — Smith Kline & French Labs.—6-Sulfamoylpteridine Derivatives.

2,998,421—Parke, Davis & Company—Guanidino Compounds.

2,998,422 — Irwin, Neisler and Company — Bis-(N-

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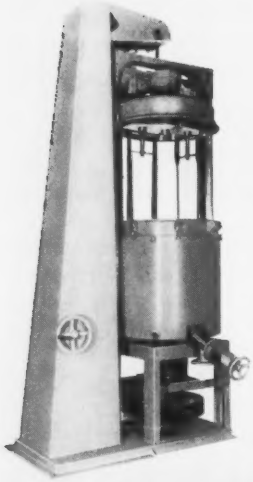
DISPERSALL MIXER



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The Abbé Dispersall Mixer gives you speed and power, plus the tremendous advantage of easy cleaning in changing from one product to another. Tooth pastes, ointments and pharmaceuticals, etc., are mixed and dispersed better and faster in the Abbé Dispersall Mixer in a ONE-stage operation. Write for Catalog 78.

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Heterocarbocyclic) Alkanes.

2,998,423 — Organon-Inc. — Esters of 19-Nortestosterone.

2,998,428—Olin Mathieson Chemical Corp.—A-Nortestololactone.

2,998,433 — American Cyanamid Company — 2α-Halo-4, 9(11), 16-Pregnatriene-3, 20-Diones.

2,998,434—Syntex S. A.—Cyclopentanophenanthrenes.

2,998,435 — British Drug Houses — 3β-Hydroxy and 3β-Acyloxy-6 Methyl-Androst-5-En-17-Ones.

2,998,436—U.S.A.—Intermediates in the Conversion of 11-Ketodiosgenin to Cortisone.

2,998,438—Merck & Co., Inc.—Eulicin.

2,999,048—Olin Mathieson Chemical Corp.—Nancimycin, Dihydronancimycin, Their Salts, and Method of Manufacture.

2,999,049—Wisconsin Alumni Research Foundation—Warfarin Sodium and Heparin Sodium Composition.

2,999,068—Proctor & Gamble Company—Personal Use Detergent Lotion.

2,999,091 — Abbott Labs. — 3, 9-Diazabicyclo[4. 2. 1] Nonane Derivatives.

2,999,092—G. D. Searle & Co.—8-Amino-1-Hydroxy-13α-Methyl-1H-Cyclopenta [5, 6] Naphtho-1, 2-g Quinazolines.

2,999,096 — Endo Labs. — Cyanobenzhydryl Ethers of Amino Alcohols.

2,999,101 — G. D. Searle & Co. — 11-Oxygeanated 17-Alkylsulfinyl-and 17-Alkylsulfonylandrost-4-En-3-Ones.

2,999,103 — Schering Corporation — 16-Nitro-Alkyl Steroids.

2,999,116—Givaudan Corporation—Process for Preparing Patchoulione.

PMMI PREVIEW

(*Continued from page 455*)

Chase Equipment Company will show filling, plugging and stoppering machines, piston fillers, and semi-automatic stoppering machines. The Model 31 filling and plugging machine, for filling and partially inserting the special rubber stoppers used for lyophilization, will also be shown.

Consolidated Packaging Machinery Corporation will display two machines: a four-spindle rotary crimper for use in crimping aerosol valves in aerosol containers, which can also handle, with a change in chucks, the crimping of aerosol valves on plastic-coated bottles; and an eight-spindle rotary capper for use in applying roll-on, pilferproof, alluminum caps.

E. I. Du Pont De Nemours and Company, Inc., Cel-O-Seal and Vexar divisions, will exhibit Cel-O-Seal cellulose bands, and demonstrate the use of Vexar plastic netting as cushioning material, reusable stockinnettes and resiliant, moisture-resistant pledgetting material for pill bottles.

Economic Machinery Company will present automatic spot labeling machinery, a dividing machine

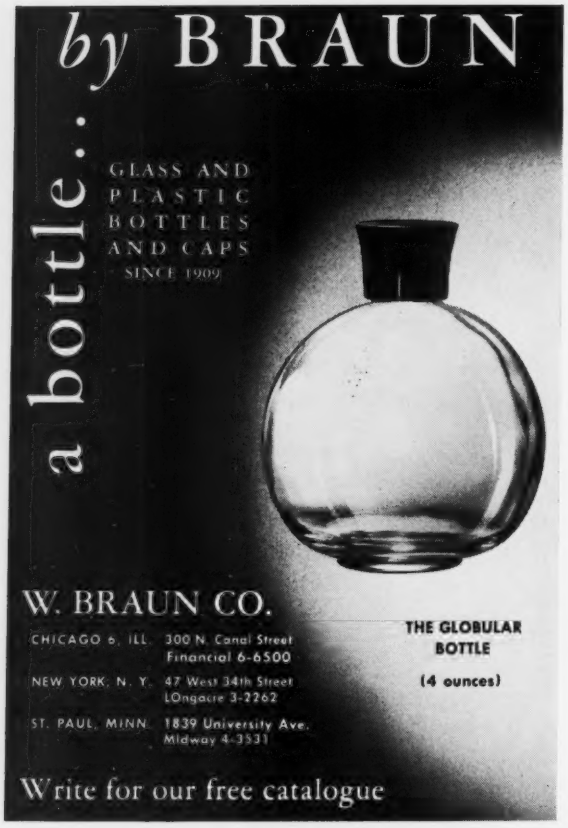
(*Continued on page 514*)

Sonneborn research helps open doors

Over the years, Sonneborn research has literally "opened doors" to a multitude of pharmaceutical and cosmetic products. The key: highly refined petroleum products that enable the manufacturer to select exactly the right base to enhance his product's properties and make it pleasanter to use. ¶ Sonneborn's success has been a result of two factors: experience, and knowhow in refining of oils... coupled with the ability to modify and blend them for selected properties. Through research, Sonneborn has developed a wide range of white mineral oils, petrolatums and petroleum specialties to suit a great diversity of requirements. ¶ We'll be glad to work with your chemists and production people to devise a refined petroleum product that will open many doors for your product too . . .

SONNEBORN DIVISION OF WITCO

SONNEBORN CHEMICAL AND REFINING CORPORATION
White Oil Division, Dept. C120
300 Park Ave. So., New York 10, N. Y.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PMMI PREVIEW

(*Continued from page 512*)

for handling bottles in single file and dividing them into two or more lines, an automatic case packer, an automatic bottle feeder, a 16-spout vacuum filler, a 24-spout gravity filler, an automatic uncasing machine, an automatic caser, an aerosol pressure filler, a fill height inspector and an automatic case set-up machine.

Ertel Engineering Corporation will exhibit a straight line filling machine that is completely automatic and electronically controlled and a stainless steel plate and frame filter.

FMC Corporation, Packaging Machinery Division, will exhibit a pouch maker that automatically forms, fills and seals pillow and four-seal type pouches from roll stock; a high speed checkweigher; a shrink wrapping machine; a transparent lid forming machine that shapes, creases and seals both acetate and polystyrene lids at 1500 to 1800 per hour; and two models of the firm's bag makers.

Ivers-Lee Company will exhibit a new method of opening unit packages, unit packages in any shape, suppository packaging and other machine rental systems.

The Karl Kiefer Machine Company will have on display a station high speed rotary pin point filler, an 8-station, 2-stream high speed rotary vari-visco volumetric filler, a mono-piston semi-automatic volumetric filler, a monoscale semi-automatic gravi-vetric filler and a Gas Jet, Jr., aerosol pressure charging machine.

Pneumatic Scale Corporation Limited will feature an automatic high speed bottling line consisting of unscrambling, air cleaning, liquid filling and screw capping units as well as several semi-automatic machines.

U. S. Bottlers Machinery Company will exhibit a 24-tube pressure vacuum filler with adapters to fill plastic bottles.

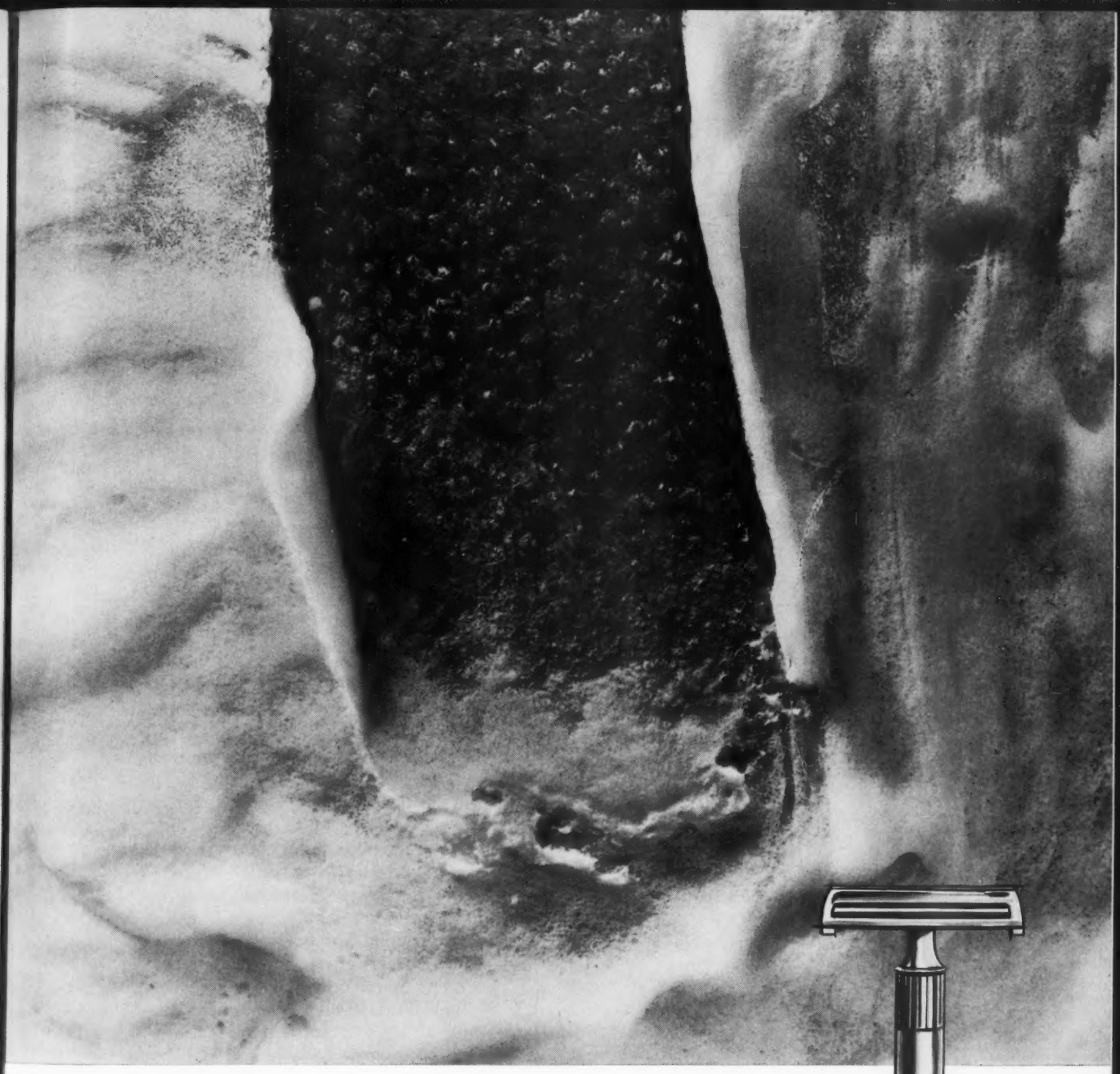
ANTI-PERSPIRANTS

(*Continued from page 459*)

the normal way. The additional atomization that results is responsible for an unusually fine spray, and also reduces the chilling effect of the aerosol. This is because a smaller amount of the product, which creates the cooling effect by evaporating on the skin, escapes. Most of the propellant itself dissipates as soon as it reaches the air.

Aerosol packages of anti-perspirants, equipped with the "Vapor Mix" valve, "Micro-Mist" actuator and "Seal Dome" closure and containing aluminum salts have proven themselves in extensive shelf and use testing. Where anti-perspirants normally clog an aerosol valve within two days when an ordinary

(*Continued on page 516*)



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Sales Representatives and Warehouse Stocks in Principal Cities throughout United States

ANTI-PERSPIRANTS

(*Continued from page 514*)

closure is used, the "Vapor Mix" valve has remained clear and easily actuated when the "Seal Dome" closure is utilized.

The new "Seal Dome" closure should be equally effective when used with adhesives and any other formulations that tend to dry out and clog an aerosol valve.

JAPANESE COSMETIC INDUSTRY

(*Continued from page 441*)

for cosmetics that come within the reach of the pocketbook. The Socialists are following up their poll by entering the cosmetic business and marketing cosmetics for about 30 cents a package.

The Shiseido Company is a fine example of Japan's phenomenal economic growth since the war. Well diversified, they manufacture over four hundred products from soaps and detergents to lipsticks, toothpaste and tooth brushes. They are very willing to seek new methods, and send technical employees to study and work with concerns all over the world for periods as long as a year. As an example of their willingness to accept any approach that would help them, this company has just begun an intensive campaign to introduce light pastel shades of lipstick with the introduction of their "Candy Colors." Intensive advertising is being used to make the Japanese women aware of the possibilities of using a variety of any one type of cosmetic.

Though the Shiseido Company has its own beauty salons that cater to hair, cosmetics and body massages (something rarely so all encompassing for American beauty salons), they manufacture no color products or cold waves. When asked about this, the firm implied that in the past the quantity used hadn't been great enough, but interest of late has them working on such products in their laboratories. The colors preferred for tinting are deep burgandy, brown and black for covering gray hair.

In order to promote patronage and more important, to have the patrons return again and again, one of the Shiseido beauty shops in Osaka gives away a delicately made Japanese doll at the year's end. It may seem like a small return for unfailing patronage to a beauty shop, but each woman's response was one of delight to be personally remembered. The parent Shiseido company has three million women enlisted as devoted buyers for the more elaborate gifts given. Depending upon the amount bought in a year, a woman is classified for a gold, silver or brass gift. The bookkeeping may be cumbersome for such a system, but the advantages of three million happy customers seem to justify it.

The Shiseido plant, like many others, is unionized.

(*Continued on page 518*)

excellent **STABILITY**

Uniform, smooth in texture, free from taste and odor—Penn-Drake Petrolatums have *and retain* these characteristics so essential to hundreds of successful cosmetics and pharmaceuticals.

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YOUR SPECIFICATIONS

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AN ASSOCIATED COMPANY

JAPANESE COSMETIC INDUSTRY

(Continued from page 516)

Most of the employees are under thirty. It was surprising to find a large number of employees remaining at the plant after working hours to attend classes in the tea ceremony and flower arrangement, popular with the girls. The boys prefer ping pong and the popular mah jong (with side bets). They work seven hours a day, six days a week. Salaries average about fifty-five dollars a month, plus two yearly bonuses, for the girls and about one hundred dollars a month for the men. These are considered high wages.

To encourage the sales of domestic cosmetics, such as face creams, rouge, and the like, the manufacturers frequently give French and English names. The directions are also often written in English.

The low priced line of commonly-used cosmetics will sell for about 60 cents while the medium-priced line, the most popular in sales, is from one dollar and 20 cents to one dollar and 80 cents. The customers who want more elaborate packaging are willing to pay in the range of two and a half dollars.

A manufacturer has commented that since cosmetics are still considered a luxury, their continued rise will be affected by the increasing consumer goods exported by Japan to the United States and Europe. Should these exports become curtailed, affecting the buying power, it is the cosmetic industry that is likely to feel it first.

COSMETIC SALES

(Continued from page 436)

TABLE 1

States and Regions	Retail Cosmetic Sales
Connecticut	$20,000,000
Maine	6,200,000
Massachusetts	38,000,000
New Hampshire	4,250,000
Rhode Island	6,000,000
Vermont	2,500,000
Total New England	76,950,000
New Jersey	42,000,000
New York	182,000,000
Pennsylvania	79,000,000
Total Middle Atlantic	303,600,000
Illinois	83,000,000
Indiana	28,000,000
Michigan	58,000,000
Ohio	68,000,000
Wisconsin	28,000,000
Total East North Central	265,000,000
Iowa	20,000,000
Kansas	15,000,000

Minnesota	23,000,000
Missouri	31,500,000
Nebraska	10,000,000
North Dakota	3,900,000
South Dakota	3,700,000
Total West North Central	117,100,000
Delaware	4,000,000
District of Columbia	8,000,000
Florida	35,000,000
Georgia	22,000,000
Maryland	23,000,000
North Carolina	24,000,000
South Carolina	11,000,000
Virginia	24,000,000
West Virginia	9,000,000
Total South Atlantic	160,000,000
Alabama	14,000,000
Kentucky	12,000,000
Mississippi	8,500,000
Tennessee	16,000,000
Total East South Central	50,500,000
Arkansas	9,000,000
Louisiana	18,000,000
Oklahoma	14,000,000
Texas	65,000,000
Total West South Central	106,000,000
Arizona	9,000,000
Colorado	13,000,000
Idaho	4,500,000
Montana	4,800,000
Nevada	2,500,000
New Mexico	6,000,000
Utah	5,700,000
Wyoming	2,600,000
Total Mountain	48,100,000
Alaska	1,500,000
California	135,000,000
Hawaii	4,000,000
Oregon	13,000,000
Washington	22,000,000
Total Pacific	175,500,000
Total United States	$1,302,750,000

TABLE 2

Metropolitan Marketing Areas	**Retail Cosmetic Sales**
Buffalo	$ 10,860,000
Cincinnati	8,300,000
Chicago	59,000,000
Cleveland	16,480,000
Detroit	32,600,000
Indianapolis	6,050,000
Kansas City	8,950,000
Los Angeles—Long Beach	62,450,000

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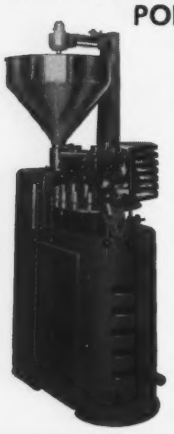

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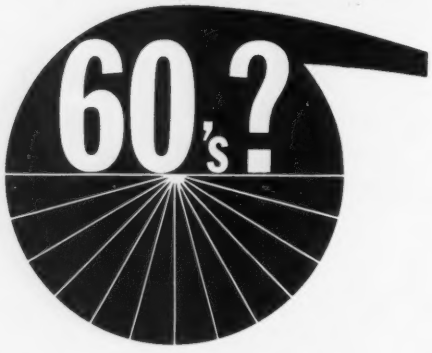

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New Orleans	6,050,000
New York Metropolitan Area	138,700,000
New York City	101,900,000
Philadelphia	36,900,000
Pittsburgh	18,160,000
Portland	6,160,000
Richmond	2,830,000
St. Louis	16,900,000
San Francisco	27,900,000
Washington, D. C.	20,630,000

DECISION AT POINT OF SALE

(Continued from page 450)

The outstanding influence shown in this survey and all of the others was word of mouth. Why is the enthusiastic praise of a product by a relative, a friend, a chance acquaintance or sometimes a friend of a friend so potent? We could theorize for pages on this subject. Let's just say that friendly praise of a product arouses curiosity, gives confidence, arouses a desire to emulate. Let's also say that word of mouth praise is stimulated by satisfactory product performance or package dispensing convenience.

While hundreds of millions of dollars are spent on paid advertising, very little is known about that potent force, word of mouth, and very little spent on it. Public relations, an expanding profession, is trying.

Advertising has played a vital part in developing the packaging of products and the brand name. Nearly all manufacturers and retailers are firmly convinced that advertising is the one and only key to success. And yet extensive, professional studies of what takes place at the point of sale deny this.

However, the survey which gives to advertising a 21.1 per cent buying motivation influence (no other survey varied more than 15 per cent from this figure) cannot be downgraded or ignored.

It must be admitted that a manufacturer of a toothpaste, in mass distribution, particularly self-service stores, has a good reason to expect more direct results from his advertising dollar than the manufacturer of an expensive therapeutic cream sold in department stores. The toothpaste manufacturer can think less about word of mouth, less about store help from sales clerks. The cream manufacturer may find neglected opportunities in cultivating word of mouth, trial use by gift and samples, and the help of store personnel.

Most sales managers will vigorously deny that there is any lack of understanding in their company regarding store influence. Nevertheless, we have been in a period when advertising agencies, with few exceptions, have persuaded advertisers to direct nearly all their selling dollars into consumer advertising. True, salesmen have been equipped with elaborate portfolios on advertising, which neither the salesman nor the retail buyer ever has time to look at. Ex-

(Continued on page 522)

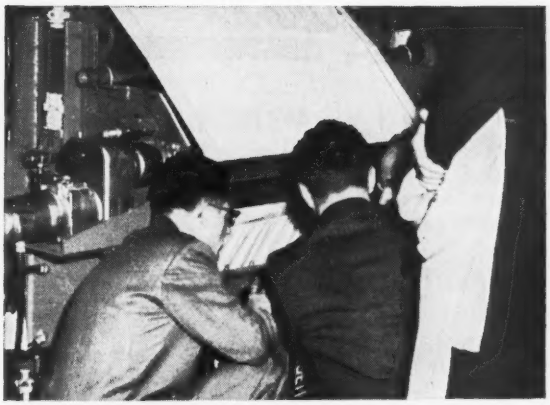
QUARTERNARY AMMONIUM COMPOUNDS

(*Continued from page 445*)

permanent had been administered has been greatly reduced. The product therefore has a good sized market. One of the difficulties, however, is that unless it is used with strict adherence to instructions, too large a concentration will cause the hair to become somewhat limp. This is especially true when it is used after a shampoo. There have been an increasing number of grumblings recently, since the "fluffed up" hair style has become popular.

It is possible, theoretically, to solve this difficulty by the use of a substance which could conceivably do away with the excessive limpnesss likely to be imparted by the quaternaries now in use. There have been various mechanisms proposed, but as far as the author knows, nothing has as yet appeared on the market.

The third classification referred to above is the use of quaternaries as emulsifying agents. They have shown themselves to be good agencies in the formulation of cosmetic creams and lotions. This is to be expected, since the molecular structure (insofar as the relationship between hydrophile and lipophile) is the same as in a soap, except that the electrostatic charges of the two are reversed. Because of this reversal, however, greater care must be exercised in their formulations, since free fatty acids (such as stearic acid) are ordinarily incompatible. However,



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6

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Now Open Seven Days a Week

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Facilities for sales meetings, presentations and social functions

DECISION AT POINT OF SALE

(*Continued from page 520*)

pensive and extravagant displays are sent to retail customers, often accumulating in store basements, never to meet the customer's eye.

What has been lacking in the policy making offices of too many manufacturers is a keen and subtle understanding of what happens to the consumer in a retail store. With this understanding there would surely be a more active interest in the whole question of retail relations and the retail image of company, policy and product.

In view of all the potent buying influences swirling around a customer in a retail store, it is rather a remarkable sales experience to glance through the retail trade press. Management, wishing to convey to the retail personnel, their actions and policies, advertising and promotions, and their products, should be expected to be vigorous users of this direct communication to their primary customers and first line sales representatives.

Instead, most retail trade advertising is dull, unimaginative, and uninformative. It is, in fact, the product of the last junior apprentice in the copy department of the advertising agency.

These studies should open up a few critical questions to be asked as part of every sales and advertising decision.

QUARTERNARY AMMONIUM COMPOUNDS

(*Continued from page 521*)

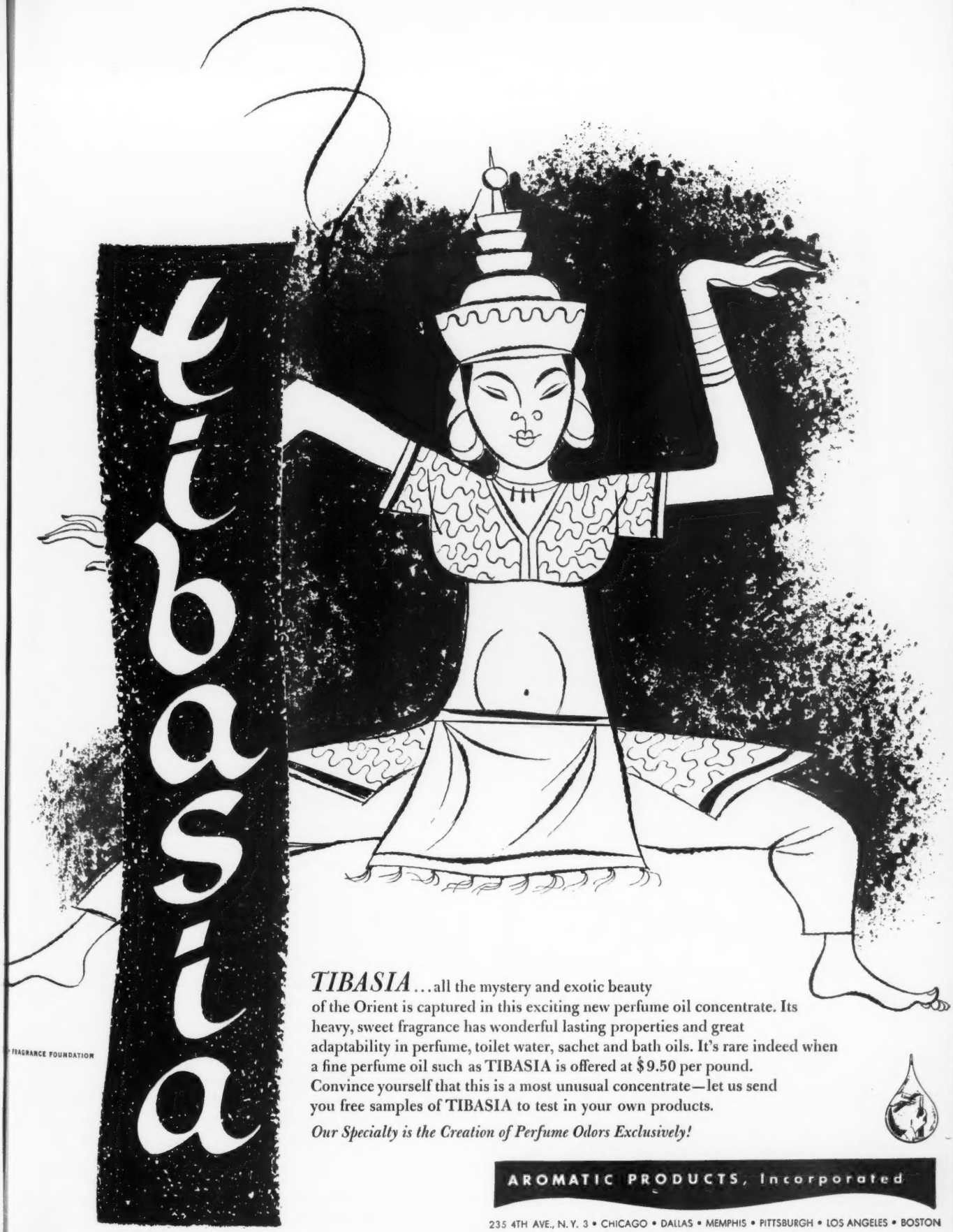
products of this type are capable of imparting a more impervious film to the skin surface than are creams of other types, since the substantive character of the quaternary would cause its removal from the vehicle by reaction with the skin. The rest of the vehicle would therefore be more resistant to moisture because of the absence of an emulsifying agent, which would normally cause its more ready incorporation into the film. In addition, they impart a smoothness now variously described as "the cationic feel," which may be desirable, and very definately is, in a great many preparations.

One of the best selling baby lotions is such a preparation. It couples an acid *p*H with a smooth feeling film, containing bacteriostatic properties. It prevents release of ammoniacal odors due to urine degradation, and protects the skin against infection.

With preparations such as the above mentioned to set a precedent, and with a greater tendency on the part of cosmetic formulators to turn towards products with an implied pharmaceutical end usage, such a system would be useful in the incorporation of substances which are normally thought of as incompatible with soaps.

The field concerned with their usage is still largely

(*Continued on page 524*)



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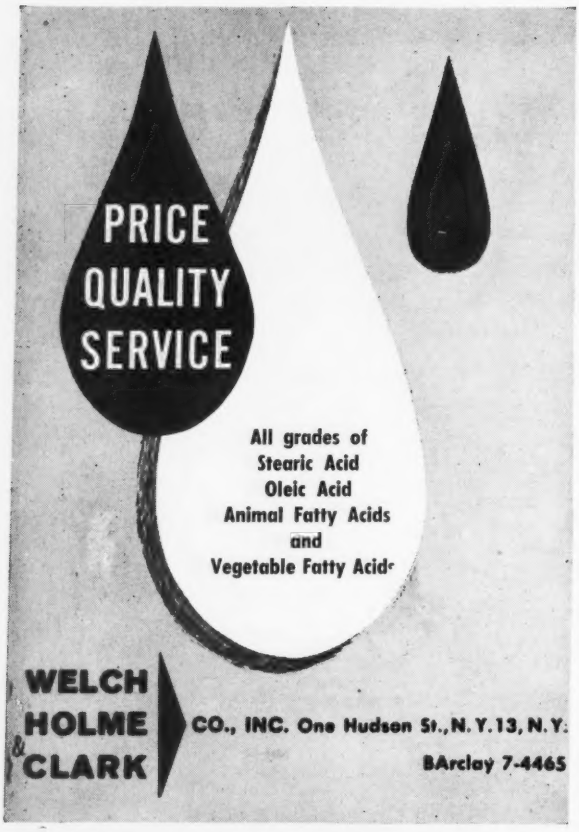

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QUATERNARY AMMONIUM COMPOUNDS

(*Continued from page 522*)

unexplored. Although we ordinarily think of these substances as incompatible with soaps, there is a patent now extant, covering the use of a quaternary with an anionic detergent, where the product so formed (but solubilized by an excess of the detergent) is said to alleviate hair dryness as a result of its incorporation. This fact may be due to the ability of the complex formed to coat the hair, but this is only a guess. Work now in progress will undoubtedly bring to light further interesting facts.

HAIR COLORING AND BLEACHING

(*Continued from page 446*)

erally speaking, these rinses are indeed temporary, but they also act as excellent colorimetric indicators of hair damage. If it has been badly bleached or over-permanent waved, the simple rinses will take very strongly on the damaged portions and can be embarrassingly permanent on these portions. They react directly with the keratin to a much greater degree than the oxidation dyes which are essentially merely pigments formed *in situ* by the action of peroxide. Finally, over a period of time, this constant application of strong acid solutions tends to embrittle the hair and make it feel rather harsh.

Semi-permanent Dyes

In the past few years, a new category of hair dye has appeared, and is currently taking a substantial share of the American market. The first of these to appear was a formula imported from France. When its success became apparent, several similar or improved formulas were introduced by American firms. Little has been published regarding these formulas, but a review of the patent literature and general consideration of the properties of these products show the following:

1. None of them requires a developer or oxidizer in connection with application of the color. They are not oxidation dyes.
2. On the other hand, it can be shown that some of them contain *nitro* derivatives of the aromatic amines. These differ from the parent compounds in giving fairly good depth of shade without the need for fixation by oxidation. 2-nitro-paraphenylene diamine is an example of this type, giving auburn shades on the hair.
3. Some of these products also have definitely been shown to contain pre-metallized dyes, complexes of azo dyes with such metals as chromium. These are generally neutral dyeing colors.
4. Other products of this type also contain solvent-soluble dyes in mixed aqueous-solvent systems.
5. Some contain basic dyes, either alone or in combination with the other dyes mentioned above.

This type of hair coloring would be ideal if it

lived up to all the claims made for it. By washing out in about five shampooings, problems of retouching due to new growth are eliminated. Unfortunately, many of the early products marketed are uneven in this respect, the red shades lasting too long and the grey end of the scale washing out too quickly. Some of the shades are too raw for general use on all types of hair. Truly deep shades such as black have not yet appeared on the market.

"Vegetable" Dyes

The so-called "vegetable" dyes, natural organic extracts from various plants, have a rather limited use today. The only one with a market of any size is henna. However, it should be of interest to spend a few moments on these products since they are still used extensively in some parts of the world and historically, were the first to be used for hair coloring.

The *henna* shrub is found in many tropical countries—such as Egypt, Arabia, and India. The leaves and stems contain about 1 per cent of a coloring material called lawsone, 2-hydroxy-1,4-naphthoquinone. This is an orange-red dye which takes best on the hair from an acid medium. It is occasionally mixed with other extracts, usually the woody types containing pyrogallol, in order to modify the shade obtained. Henna-containing products generally give unnatural shades and build up to an unpleasant *coated* look on continued application. Hair which has been colored with *compound* henna (mixtures of henna plus metallic salts and occasionally, pyrogallol) soon acquires a metallic sheen and will not take permanent waves or para dyes.

Camomile is the only other plant of commercial importance used today for hair coloring. It is used more often in Europe than in the United States. The active agent is 1,3,4-trihydroxyflavone, known as apigenin. At least five per cent of powdered camomile must be used to get any of the characteristic chrome-yellow color to appear on the hair. This extract is used as a "bleach" in rinses and shampoos in some of the northern countries to produce that characteristic look of the "girl with the flaxen hair."

Other plant extracts which were formerly used (the "active principle" is in parentheses) are green *walnut shells* (5-hydroxy-1,4-naphthoquinone), *Logwood* (hematoxylin), *Nutgalls* (pyrogallol), and *Catechu* (catechol and catechutannic acid).

Metallic Dyes

It is quite surprising that in this day and age of government controls, the use of heavy metal products for coloring the hair is unrestricted. Whereas dyes offered for certification will be rejected if they contain more than ten ppm of lead, and body talcums or face powders containing over 20 ppm are subject to recall from the market by the FDA, hair coloring formulations containing one to two per cent lead acetate are commonly sold in every drug store. They require no warning label or statement of contents.

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Lead Acetate is the most commonly used material in the so-called "progressive" hair colorings. Such products are more commonly used by men than by women in the United States, frequently being found under the counter in barber shops and applied without fuss or bother by simply combing in, very much in the manner of a hair groom.

The idea is hardly a new one. The ancient Romans did the same thing by dipping a lead comb in vinegar before passing it through the hair. An insoluble oxide or sulfide forms on repeated application and exposure to the air, gradually building up from a very light tan shade to more or less black ones. It supposedly helps to include a little sulfur in the formula. These dyes are often called "color restorers" (a complete misnomer) and the manufacturer promises that your own "natural" shade will be restored, no matter what it was to start. These products leave a metallic sheen, rub off on the pillow, give shade variations from root to end of the hair, and are quite toxic if ingested or absorbed into the body through minor cuts in the scalp. In spite of all this, they are still very popular with men for two reasons:

1. The effect they give is gradual. By the time a man decides he wants to color his hair, it is often quite grey and he prefers not to startle his friends by a sudden change.

2. The solutions themselves are colorless, not obviously a dye, not messy to apply, and can be applied quite publicly (such as in the barber shop) without anyone knowing. The user often has no idea that he is using an artificial coloring since it is presented to him as a color *restorer*.

Occasionally, the progressive metallic dyes are converted to an "instant" variety by selling a second bottle containing a sulfide, or pyrogallol solution to be applied after the heavy metal has a chance to adhere to the hair. One modern version was a two-bottle preparation which contained hair grooming agents and thioglycolic acid as the developer and hair set.

Silver nitrate, which darkens on exposure to light is also fairly commonly used in this country. Pyrogallol is used as a developer when quick development of color is desired. Quite logically, sodium thiosulfate (photographer's hypo) is also often used. And since synthetic organic dyes are not allowed for use near the eyes, a five per cent solution of silver nitrate followed by three to five per cent sodium thiosulfate is sold to dye eyebrows and lashes. The only other recourse is the use of inorganic pigments which rub off easily and are easily recognized. To avoid staining the skin or getting the solution into the eyes, light mineral oil should be applied to the skin around the eyebrow.

Copper dyes are also to be found on the United States market. Copper sulfate with pyrogallol produces brown; adding ferric chloride to this produces black. If sodium sulfite is included, all of these components can be combined in one bottle which darkens on the hair as soon as it is exposed to air. Copper has also been used over *silver* dyes to cover

the irridescent effect commonly produced by them.

A final note on metallic dyes: they must be removed completely with hot oil treatments and/or sequestrants before attempting to use permanent waves, bleaches, or oxidation dyes on hair which is coated with them. In the case of permanent waves, the metal acts as a destructive catalyst for the thioglycolate, rendering it ineffective or giving uneven effects. The same catalytic action will destroy peroxide also, but often with more disastrous results for the user. The peroxide is made much more reactive since it gives up its active oxygen very quickly under such circumstances. Unexpectedly q u i c k bleaches, para dyes developed before they can take on the hair, and hair breakage are the result.

Para Dyes

The huge majority of all permanent hair dye formulations sold in this country contain oxidation colors which are commonly called "para" dyes, so-named for the most common of all, para-phenylene diamine. These dyes are colorless aromatic amino compounds which develop into intensely colored insoluble pigments when reacted with oxidizing agents. The oxidizing reaction is relatively slow at room temperature. Just before application therefore, the customer mixes two bottles together: one a solution of the dye, the other a bottle of peroxide or other oxidizing agent. When this mixture is applied to the hair, its alkalinity swells the hair, allowing the soluble amine to soak into it and react to some degree with the keratin. After 15 to 45 minutes, the oxidizing agent turns this amine into an insoluble colored pigment. In effect, you have formed a vat dye *in situ*, giving a relatively permanent coloring to the hair which withstands as many as a dozen shampooings before color fading becomes noticeable. Since the hair grows about half an inch per month, reapplication to the new growth is needed long before this fading appears. The usual practice at the time of this "retouch" is to apply a little dye to the ends of the hair as well.

In contrast to the dull, harsh, and often iridescent shades produced by the metallic precipitates used for permanent coloring of hair, these "para" coloring agents give good, natural looking lustrous shades such as black (p-phenylene diamine) and orange-reds to medium browns (the ortho and para amino phenols). They have an important advantage over all other hair dyes: by judicious control of the amount of oxide put into the mixture, they can simultaneously bleach and color the hair. All other types of dyes are *additive* in color only, giving a different shade, depending upon original hair color. Today's familiar drug store "color card" (showing what shades you may obtain by using any particular product) is possible only because of the use of these para dyes.

The typical permanent dye on the market today has about three times the peroxide actually needed to develop the color. The excess is deliberately in-

(*Continued on page 530*)

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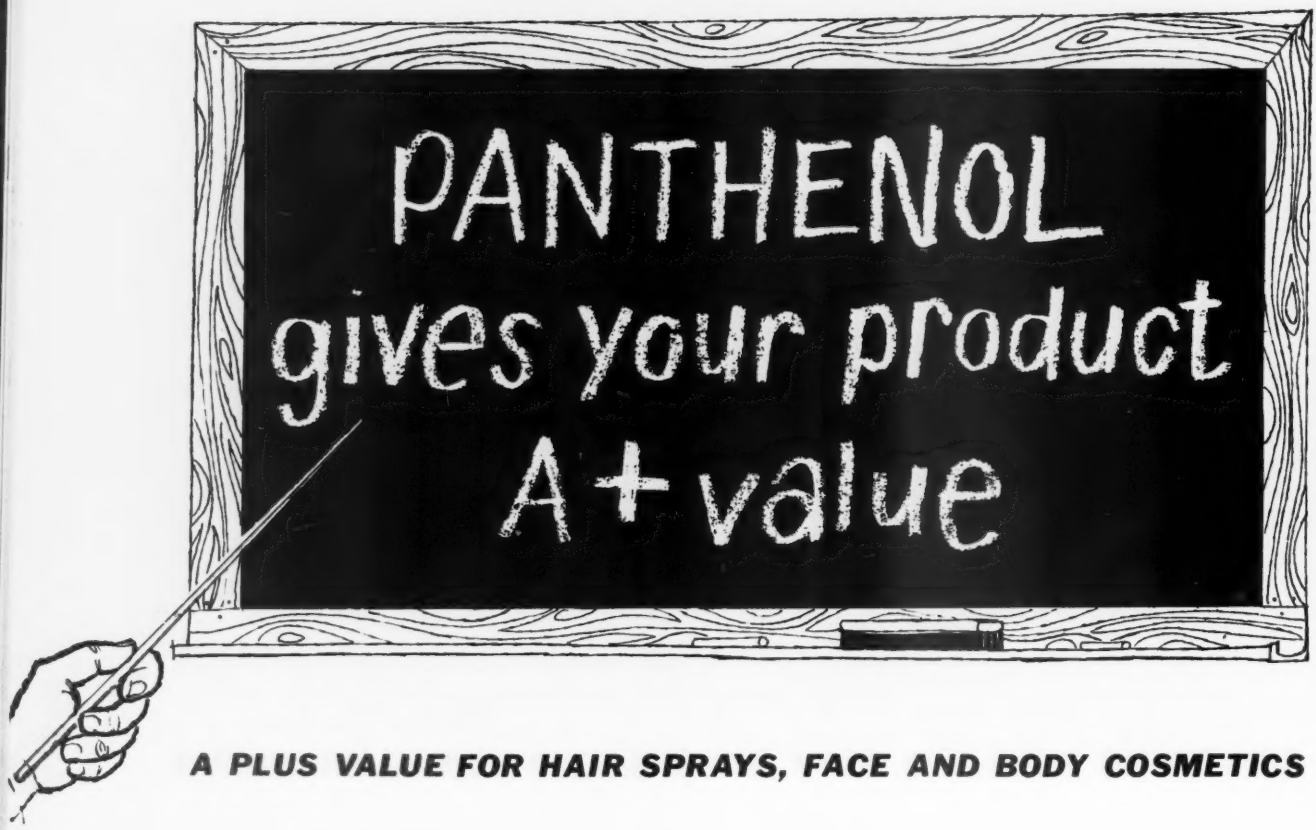

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Vitamin B_6 in Cosmetology

Results of cosmetological experiments with tripalmitic ester of pyridoxine were reported by Guido Roccheggiani in a paper presented at the XIIIth International Congress of Beauty Treatment and Cosmetology, Lucerne, Switzerland (*Soap, Perf. & Cos.*, June 1961, pp. 547-552). Dr. Roccheggiani is engaged in experimental research on the cutaneous action of liposoluble derivatives of the vitamin B group.

Pyridoxine tripalmitate is the tripalmitoyl ester of vitamin B_6. Pyridoxine tripalmitate has heretofore been used to enrich fat-base food and in pharmaceutical specialties with vitamin B_6.

It is an absolute novelty in cosmetology, so far as the specific literature shows, according to the author.

Pyridoxine tripalmitate, being a fat-soluble derivative of vitamin B_6, is therefore a diadermic or percutaneous substance, one which can be absorbed, through the dermal structure, by the skin which takes it up and remains permeated by it.

Three types of O/W emulsified creams containing pyridoxine tripalmitate were tested on 45 women divided into three groups differing in age and skin characteristics: from 18 to 25 years with generally greasy marred skins (acne, etc.); from 33 to 44 years with normal or slightly withered dyskeratosic skins; from 55 to 65 years, with dry, colourless, wrinkled skins.

The three creams differed in their oil phase, the first consisting of euthanol, seed oil, and pyridoxine tripalmitate; the second of pyridoxine tripalmitate in oleic alcohol; the third of seed oil and vitamin F solution with pyridoxine tripalmitate. The last of the three creams produced the speediest results, probably due to the synergistic action of vitamin F. The eudermic effects of the test treatments were most speedily apparent in the younger participants. The older subjects showed equal benefits but required more treatments for full response.

Conclusions reached by the author indicate that:

(1) Pyridoxine Tripalmitate (ester of vitamin B_6 with a higher fatty acid) is a fat-soluble skin biocatalyst opening up new and interesting applications in cosmetology. It combines the characteristic eubiotic properties of vitamin B_6, of which the beneficial skin effect is well known, with good diadermic absorption, of prime importance for the maintenance and duration of action after the beauty treatment.

(2) The cosmetological results obtained with 0.20 per cent of this product, in creams with varying formulas sinergising skin absorption, were positive, in that there was a manifest tonification and good vascularisation of the skin, a marked restorative action and an unquestionably more attractive appearance of the derma. The product also proved efficacious, with an excellent antiseborrhoeic action, in cases of acne.

Milk in Cold Wave Solutions

Addition of small quantities of milk or dairy cream to ammonium thioglycollate cold waving solutions is suggested in British patent 850,860, Sales Affiliates, Ltd., Boreham, Herts.

Solutions incorporating milk or cream are claimed to give a "more satisfactory and stronger permanent wave formation." Condition of the hair is enhanced resulting in improved elasticity without impairment of the linkages, according to the patent claims.

Cited as an example is a composition comprising an aqueous solution of a salt of thioglycollic acid containing dairy cream and/or milk in the proportion of from 0.1 to 2.5 per cent by weight based on the total weight of the composition. The *p*H of this compound is between 7 and 10 and it has normality in respect of thioglycollic acid of from 0.2 to 1.8.

Such a cold wave solution is claimed to be less irritating to the skin than conventional compositions and it is said to impart superior sheen to the hair and leave the hair in better condition.

Glycerine in Make-Up

Semi-liquid makeup bases containing bentonite dry fairly quickly on the skin giving it a powdery and attractive appearance. However, as they dry they tend to tighten the skin thus creating a mask-like effect. Incorporation of glycerine into such products slows the drying process, according to an article by A. E. Desperrois, Chem. Products, Jan. 1961, pp. 24, 25, 27.

A makeup product of this type might be composed of: Bentonite U.S.P.—2.5 per cent; titanium dioxide—2 per cent; water—40 per cent; glycerine—25 per cent; propylene glycol—6 per cent; "Carbitol"—6 per cent;; triethanolamine stearate —3.5 per cent; mineral oil 65/75—5 per cent; color—10 per cent; and preservative and perfume.

A blemish covering preparation, the patent for which (U.S. Patent 1,877,952) is now outdated, consists of 2041 zinc oxide; 720 cc distilled water; and 300 cc glycerine plus suitable coloring matter.

A good starting point in formulating cake mascara is obtained with glyceryl monostearate—40 per cent; triethanolamine stearate—40 per cent; beeswax—10 per cent; and carnauba wax—10 per cent.

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HAIR COLORING AND BLEACHING

(*Continued from page 527*)

cluded to simultaneously bleach out some of the natural melanin pigment already in the hair. Another advantage of this excess peroxide is that it ensures complete oxidation to the final pigment. This is important since it is the free amine and various intermediary oxidation products which are toxic and occasionally cause allergic reactions. The final pigment is innocuous.

Para dyes have one great advantage over the certified dyes in addition to their insolubility when fully oxidized: many of them will give good natural looking auburns, browns, and blacks *when used singly or in very simple combinations.* No true brown or black exists in the certified series of dyes. The shades given to human hair by a few para dyes are listed below:

Para Dyes	Resulting Shades
p-phenylene diamine	black
m-phenylene diamine	gold
O-phenylene diamine	brassy gold
p-toluylene diamine	light reddish brown
2,4-diamino diphenylamine	violet brown
p-amino phenol	light auburn
O-amino phenol	deep gold
2,4-diamino phenol	light reddish brown
2-amino-4,6-dinitrophenol	light auburn

In contrast to the above shades, only crude primary-type colors such as bright reds, yellows, blues, and greens are possible with single certified dyes. When soft, natural looking shades are desired with certified dyes, extreme formulation contortions are often necessary. The use of five to seven different certified dyes in a formula is not unusual and there is always the risk of a chromatographic separation on badly damaged hair. In contrast, para dye formulations are quite simple, often containing only one or two dyes with the occasional use of a "modifier."

A modifier is a colorless material which in itself does not generally color the hair at all. However, it does *react with the oxidation color* and it's presence in a formulation gives results which may often be quite unexpected to the unitiated. In addition to these "true" modifiers, many of the para dyes interact among themselves in solution. Thus a red dye plus a brown dye will not always give a reddish brown result on the hair.

In general, only those intermediates which can oxidize to a quinoid structure will color the hair. The meta diamines and amino phenols alone (when pure) do not. Yet they are very useful in formulations because of their reactions with the para dyes just described. The addition of sulfonic acid groups to oxidation dyes was once advocated because of a supposed reduction in irritation obtained by this means. However, adding the sulfonic acid radical greatly reduces

(*Continued on page 535*)

COMING EVENTS . . . .

OCTOBER

10 **Synthetic Organic Chemical Manufacturers Assn.,** luncheon meeting, Hotel Roosevelt, N. Y. C. (S.O.C.M.A., 261 Madison Ave., N. Y. C. 16)

10 **Chicago Perfumery, Soap and Extract Assn., Inc.,** luncheon, Sheraton Towers. (Edward F. Laseh, Tenn. Products and Chemical Corp., 200 S. Michigan Ave., Chicago 4, Ill.)

10 **Society of Cosmetic Chemists** Chicago Chapter meeting, Henrici's Restaurant, Merchandise Mart, Chicago, Ill. (S.C.C., 2 East 63rd St., N. Y. C. 21)

10-11 **National Association of Purchasing Agents,** Chemical Buyers' Group, Chase Hotel, St. Louis, Missouri.

10-13 **Research Equipment Exhibit,** National Institutes of Health, Bethesda, Maryland (James B. Davis, N.I.H., Bethesda 14, Md.)

12 **Pharmaceutical Advertising Committee** meeting, Roosevelt Hotel, N. Y. C. (P.A.C., 489 Fifth Ave., N. Y. C.)

14 **New York Council of State Pharmacists pharmacy assembly,** Statler Hilton Hotel, N. Y. C. (Joel Yellin, Hebrew Home for the Aged, 5901 Palisade Ave., Bronx 71, N. Y.)

14-19 **National Wholesale Druggists' Assn.,** annual convention, Americana Hotel, Bal Harbour, Fla. (N.W.D.A., 60 E. 42nd St., N. Y. C. 17)

16-19 **American Dental Assn.,** annual session, Philadelphia, Pa. (A.D.A., 222 East Superior St., Chicago 11, Ill.)

17-19 **Plastics Show of Canada,** Automotive Building, Exhibition Park, Toronto, Ontario.

18 **American Society of Perfumers,** open meeting, Advertising Club, 35th St. and Park Ave., N. Y. (A.S.P., 630 Fifth Ave., N. Y. C. 20)

18-20 **Packaging Institute, Annual National Packaging Forum,** Biltmore Hotel, N. Y. C. (Chas. A. Feld, P.I., Inc., 342 Madison Ave., N. Y. C. 17)

18-20 **Pharmaceutical Manufactures Assn.,** research and development section, Broadmoor Hotel, Colorado Springs, Colo.

25 **Seminar on Packaging,** one evening weekly through Dec. 6, St. Albert Hall, Jamaica campus, St. John's University, N. Y. (Walter Mullen, director of public relations, St. John's University, Jamaica 32, N. Y.)

26-27 **Pharmaceutical Manufacturers Assn.,** production and engineering section, Seaview Country Club, Absecon, N. J.

29 **Pharmaceutical Manufacturers Assn.,** financial section (to Nov. 1) Greenbrier Hotel, White Sulphur Springs, W. Va.

30 **Canadian Manufacturers of Chemical Specialties Assn.,** meeting and conference (to Nov. 1), Royal York Hotel, Toronto, Ontario.

31 **The Plastics Institute,** Engineering with Plastics, (to Nov. 1), Institution of Electrical Engineers, London, England.

31 **American Society for Microbiology,** first Interscience Conference on Antimicrobial Agents and Chemotherapy, through Nov. 2. Commodore Hotel, N. Y. C. (A.S.M., 19875 Mack Ave., Detroit 36, Mich.)

NOVEMBER

1-3 **Parenteral Drug Assn.,** annual convention, Statler-Hilton Hotel, N. Y. C. (P.D.A., 1420 Snyder Ave., Phila., Pa.)

2-3 **Society of Plastics Engineering** Plastics in Packaging, North Texas Section, Sheraton-Dallas Hotel, Dallas, Texas

7-10 **Packaging Machinery Manufacturers Institute Show,** Cobo Hall, Detroit, Mich. (W. L. Redding, Shea Expositions Corp., One Gateway Center, Pittsburgh 22, Penna.)

12 **Pharmaceutical Advertising Club,** meeting, Roosevelt Hotel, N. Y. C. (P.A.C., 489 Fifth Ave., N. Y.)

13 **Industrial Pharmacy Section A.PH.A.,** eastern regional meeting on pharmaceutical technology. Park Sheraton Hotel, N. Y. C. (A.P.A., I.P.S., 1500 Spring Garden St., Phila. 1, Pa.)

14 **Synthetic Organic Chemical Manufacturers Assn.,** luncheon meeting, Hotel Roosevelt, N. Y. C. (See above.)

14 **Society of Cosmetic Chemists,** Chicago Chapter, Henrici's Restaurant, Merchandise Mart, Chicago, Ill. (See above.)

14 **Society of Pharmacists in Industry,** fall meeting, N. Y. Academy of Sciences Building, 2 East 63rd Street, N. Y. C. (Vincent De Feo, Dodge & Olcott, Inc., 180 Varick St., N. Y. C. 14)

14-19 **National Wholesale Druggists' Assn.,** (Americana). Bal Harbour, Fla.

15 **American Society of Perfumers,** open meeting, Advertising Club, 35th St. & Park Ave., N. Y. C. (See above.)

16-19 **American Dental Assn.,** annual session, Philadelphia, Pa.

16-20 **Fifth International Automation Congress and Exposition,** New York Trade Show Bldg., New York City.

18-20 **Packaging Institute,** annual national packaging forum, Biltmore Hotel, N. Y. C. (Chas. A. Leld, P.I., Inc., 342 Madison Ave., N. Y. C. 17)

18-26 **Lady Fair Exposition,** McCormick Place, Chicago, Ill.

21 **Manufacturing Chemists' Assn.,** semiannual meeting, N. Y. C.

21 **Conferences on the Uses of Radioisotopes in Animal Biology and the Medical Sciences,** International Atomic Energy Agency, Food and Agriculture Organization and World Health Organization, Mexico D.F. to Dec. 1.

27 **Exposition of Chemical Industries,** N. Y. Coliseum, N. Y. C. to Dec. 1.

28 **Society of Cosmetic Chemists,** annual meeting and dinner dance, Biltmore Hotel, N. Y. C. (S.C.C., 2 East 63rd Street, N. Y. 21)

29 **Toilet Goods Assn.,** Scientific Section meeting, Waldorf-Astoria Hotel, N.Y.C. (T.G.A., 1270 Avenue of the Americas, N.Y.C. 20)

DECEMBER

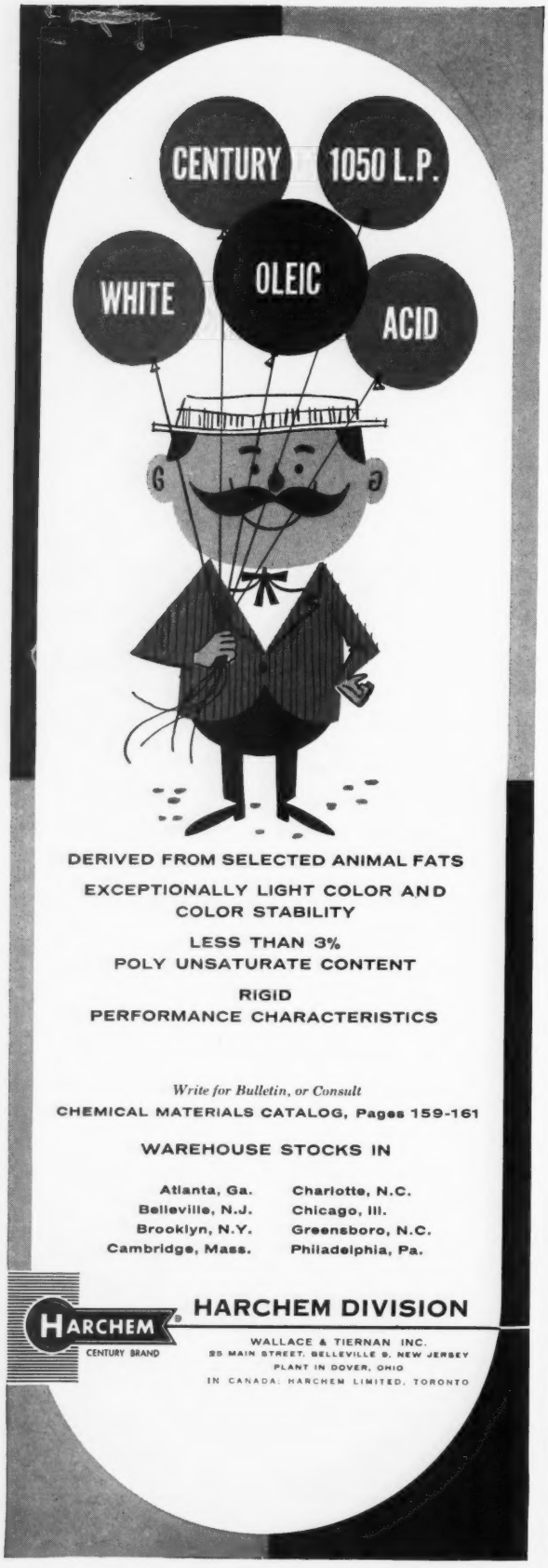
1 **Toilet Goods Assn.,** scientific section, winter meeting, Waldorf-Astoria Hotel, N. Y. C. (Kathryn Fitzpatrick, Americas Bldg., Rockefeller Center, N. Y. C. 20)

2 **Society of Cosmetic Chemists,** annual meeting, reception and dinner dance, Hotel Commodore, New York City (Walter Wynne, S.C.C., 2 E. 63rd St. N. Y. C. 21)

4-6 **Robert A. Welch Foundation,** conferences on chemical research, V-Molecular Structure and Biochemical Reactions, Rice Hotel, Houston, Texas.

4-6 **Chemical Specialties Mfg. Assn.,** annual meeting, Roosevelt Hotel, N. Y. C. (C.S.M.A., 50 East 41st St., N. Y. C.)

5 **Cosmetic Industry Buyers & Suppliers Assn.,** annual Christmas party, Waldorf-Astoria Hotel, N. Y. C. (Howard T. Kaneff, Ar-kay Printing Co., 200 Hudson St., N. Y. C. 13)



7 **Synthetic Organic Chemical Manufacturers Assn.**, annual meeting and dinner, Hotel Roosevelt, N. Y. C. (S. Stewart Graff, Sec., S.O.C.M.A., 41 East 42nd St., N. Y. C. 17).

7-9 **Pharmaceutical Manufacturers Assn.**, mid-year and eastern regional meeting, Waldorf-Astoria Hotel, N. Y. C. (Dr. J. O'Neill Closs, P.M.A., 1411 K Street, N.W., Washington 5, D.C.)

7-10 **American Medical Assn.**, clinical meeting, Dallas Auditorium, Dallas, Texas

9 **The Proprietary Assn.**, Research and Scientific Development meeting, Hotel Roosevelt, New York City (Dr. Howard A. Prentice, 810 18th St., N.W., Washington 6, D.C.)

12 **Chicago Perfumery, Soap and Extract Assn., Inc.**, annual business meeting and luncheon, Sheraton Towers. (Edward F. Lasch, Tenn. Products and Chemical Corp., 200 S. Michigan Ave., Chicago 4, Ill.)

14 **Pharmaceutical Advertising Committee** meeting, Roosevelt Hotel, N. Y. C.

16 **Chicago Perfumery, Soap and Extract Assn., Inc.**, Christmas Ball, Conrad Hilton Hotel. (See above.)

20 **American Society of Perfumers**, closed meeting, Advertising Club, 35th St. & Park Ave., N. Y. C. (A.S.P., 630 Fifth Ave., N. Y. C. 20).

24 **Manufacturing Chemists' Assn.**, Statler Hilton Hotel, New York City (M. F. Crass, M.C.A., 1825 Connecticut Ave., N.W., Washington 9, D. C.)

JANUARY 1962

22-25 **Plant Engineering & Maintenance Show**, Convention Hall, Philadelphia, Penna.

MARCH 1962

20-29 **American Chemical Society**, annual spring meeting, Washington, D.C. (A.C.S., 1155 Sixteenth St. N.W., Washington 6, D.C.)

25-30 **American Pharmaceutical Association**, annual meeting, Convention Center, Las Vegas, Nevada.

APRIL 1962

9-12 **National Packaging Exposition**, N. Y. Coliseum. (Packaging Exposition, c/o Clapp & Poliak Inc., 341 Madison Ave., N. Y. C. 17.)

30 **National Symposium on Instrumental Methods of Analysis**, Daniel Boone Hotel, Charleston, W. Va., to May 2.

MAY 1962

9 **Toilet Goods Assn.**, Scientific Section meeting, Waldorf-Astoria Hotel, N.Y.C. (T.G.A., 1270 Avenue of the Americas, N.Y.C. 20)

14-16 **Chemical Specialties Manufacturers Assn.**, annual mid-year meeting, Drake Hotel, Chicago, Ill. (C.S.M.A., 50 East 41st St., N.Y.C. 17)

17-20 **The Proprietary Association** annual meeting, The Greenbrier, White Sulpher Springs, W. Va. (P.A., 810 18th St., N. W., Wash., D. C.)

JUNE 1962

10-13 **National Industrial Pharmaceutical Research Conference**, King's Gateway, Land O'Lakes, Wisc.

11-14 **Societe Chimique de Belgique, International Symposium of Organic Chemistry** on natural products excluding steroids and polypeptides; under the auspices of the International Union of Pure and Applied Chemistry. (Florent Martin, 68, rue Berkendael, Brussels 6, Belgium.)

24-29 **Toilet Goods Assn., Inc., and the Toilet Goods Manufacturers' Assn. of Canada**, joint convention, Chateau Frontenac, Quebec, Canada (T.G.A.—see above.)

27-29 **3rd Joint Automatic Control Conference**—Sponsors: ISA, AICLE, AIEE, ASME, IRE. (Dr. A. S. Robinson, Kollsman Instrument Corp., 80-08 45th Ave., Elmhurst 73, N. Y.) ●

HAIR COLORING AND BLEACHING

(*Continued from page 530*)

the tinctorial power as well, negating its value in other respects. Addition of soaps or superfatting agents to a para dye formulation tends to reduce their affinity for the keratin of the hair also. However, this is done almost universally today since it also reduces the staining of the scalp to a negligible point. Finally, it should be pointed out that many of the compounds used for such work are technical grade materials. The presence of trace metals, isomers, or impurities greatly affect the final shade obtained. Indeed, in many cases a CP grade material does not color the hair at all whereas its technical grade equivalent may appear in many formulas. This fact means that once a formula is worked out and found acceptable, it is unwise to change the source or grade of any intermediate used in it without carefully evaluating the effect on the product.

Bleaches

Bleaches should perhaps more properly be considered *de*-coloring agents than coloring agents. Very often the average woman who buys a bleach does so under the impression that it is a "blond dye." It changes the color of her hair and she is rarely concerned with details of the mechanism unless she overdoes the process to the point that the hair falls off her head.

Leaving aside products of strictly historical interest such as sulfur dioxide or camomile extracts, only one type of material is used for bleaching today—the peroxides. Of all the available peroxides, the simplest is the one most universally used, hydrogen peroxide —H_2O_2. Some organic peroxides have been used—in particular, urea peroxide in the form of tablets to be dissolved in an "oil" base just before use.

In the United States, it is likely that 95 per cent or more of all hair bleaching is done with hydrogen peroxide, most of it applied at alkaline *p*H's. For hair bleaching, it is commonly sold at a concentration of six per cent (know as "20 Volume Peroxide"). This is twice the concentration of the standard drug store disinfectant grade. These peroxide solutions are slightly acidic, usually contain some preservative such as acetanilide, and are sold in amber bottles to increase their shelf life.

As sold, these acidic solutions have very little bleaching power. The simplest of all hair bleaches is commonly concocted by the frugal housewife who adds 20 drops of ammonia to each ounce of peroxide. It leaves the hair quite harsh, however, and therefore is not too satisfactory.

Commercial hair bleaches overcome this harshness by including various hair conditioners in the formulation. The simplest types merely add soft soap, most often oleic acid soaps, to the peroxide in order to leave a little softness and sheen to the bleached hair.

(*Continued on page 538*)

SYNAROME

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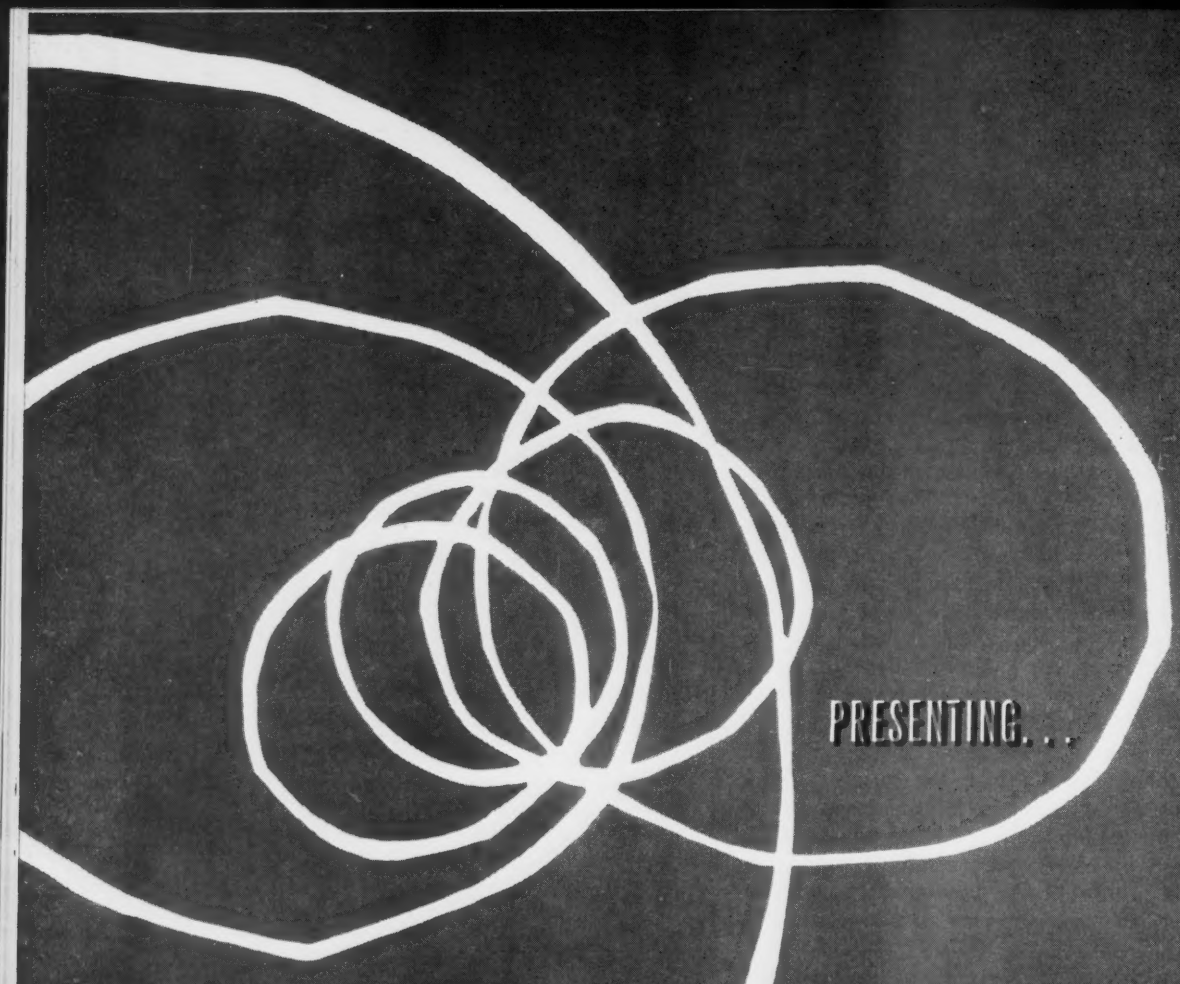

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HAIR COLORING AND BLEACHING

(*Continued from page 535*)

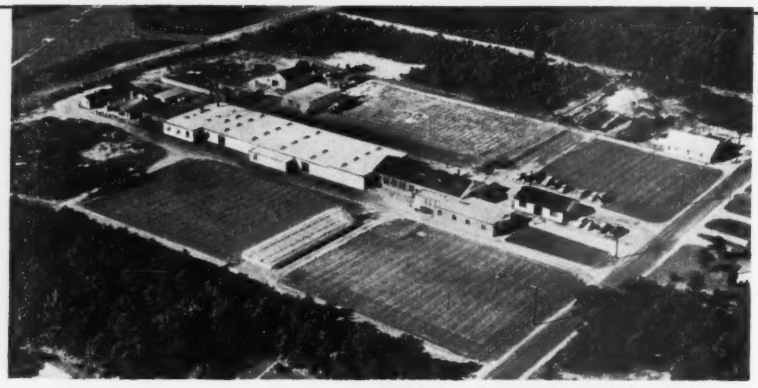
However, since peroxide is not stable on the alkaline side, such products appear in two separate bottles. One contains the standard acidic peroxide, the other contains the soap mixture. They are mixed together in equal proportions just before application. The alkaline *p*H of the soap reduces the stability of the peroxide to the point where it immediately starts to break up into free oxygen and water. It is this "nascent" oxygen which does the bleaching as it is produced.

To these soap solutions, various oils are often added to increase the so-called "conditioning action." Thus, the term "Oil Bleach" is derived. Lately, there have been trends towards the use of lipophilic surfactants, often oleic acid derivatives such as Span 80 or 83 of Atlas Powder Company in place of the soap. Materials such as lanolin derivatives or cholesterol are often used in place of straight oils. The alkaline *p*H necessary for good bleaching is almost always achieved with ammonia or amines. These are much milder in action than fixed alkalis such as caustic soda, and present the additional advantage of evaporating off with time when the bleach is applied to the head. This reduces the number of lawsuits arising from a disconcerting habit some women have of going to bed with bleach on their head and not washing it out until the next morning, in order to get maximum effects. If the product contains a fixed alkali, their hair would simply be a soggy puddle on their pillow if they kept it on that long. No matter how little free caustic is put in the product, as the water of solution evaporated, its concentration will reach depillatory proportions.

There is a type of bleach called "cream," or even "whipped cream" bleaches. These depend on having sufficient oils in the soap portion so that an emulsion is formed spontaneously as the peroxide solution is poured into it. The "whipped cream" effects are simply thicker versions of this type wherein the customer is asked to beat the mixture in a mixing bowl. Urea peroxide tablets have occasionally been used for this type.

Cationic surfactants have occasionally been added to bleach mixtures for their apparent softening effects on the hair. These are rarely used in the presence of soaps, more often with the nonionic type of formula. One interesting use of a cationic was in a product which appeared on the market a few years ago. This was a bleach which was originally intended to be left on the hair overnight. It contained no alkali, was simply a one bottle product containing hydrogen peroxide, a cationic, and stabilizers. Being mildly acidic, it worked very slowly. This deficiency was cited as a virtue by claiming only mildest effects and greater

(*Continued on page 550*)



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Skin Research

EPIDERMAL REGENERATION—PART 3
(*Continued from the Sept. issue*)

Williamson edited a symposium on the healing of wounds, which contains ten papers dealing with basic and practical aspects of the problem. *Gimbel et al.* produced 2 cm. diameter bullae on the skin of human volunteers by application of moderate heat. Epithelization was measured after excision of the burn at various intervals. It proceded most rapidly if the blister was not in any way disturbed or treated. At first a single layer of undifferentiated epithelial cells covered the denuded area. This became multilayered through mitotic division and redifferentiated into the various epidermal layers.

MELANOCYTES AND MELANIN

M. Ito summarizes in a monograph his and his associates' studies on melanin. The first five of 18 chapters deal with histologic investigations of melanocytes in the epidermis and with various histochemical inquiries. *Deutsch, Mescon* review melanin pigmentation and its endocrine control. Simons discusses the sociologic significance of pigment, which always has been great. In one of a series of articles dealing with growth and development of Negro infants in Tennessee *Horton, Crump* state that color of the baby's skin seems to be influenced by that of its parents and of more remote ancestors. Three fourth of children are in the same color group as their parents, more than half are lighter than the darker parent. *Murray* warns that abrasive surgery tends to leave Negroes with unsightly hyperpigmentation, which according to him is localized mainly in the hypertrophic basal layer.

Breathnach follows up his observation that freckles possess fewer, but larger and more active melanocytes. The epidermis covering a stretched scar from an excision that went through a freckle contained sharply defined areas with normal or ephelid melano cytes. These must have grown over the scar with the respective epidermis containing them. *Zwillenberg* examined separated epithelial sheets of human and macac vagina and cervix by vital staining with toluidine blue. Dendritic cells corresponding to Langerhans cells were found in the higher layers, also small non-pigmented cells with metachromatic granules in the basal layer. Both types are considered to be of melanocytic nature. *Fan, Hunter* using the gold technique of *Ferreira-Marques* for the demonstration of Langerhans cells confirmed his findings, but found so much non-specific metallic precipitate in control tissues that they believe caution is necessary in interpreting results. *Clark, Hibbs* examined the clear cells of Mosson (melanocytes) in the human epidermis by electron microscopy. The morphology of these cells is similar to that of the melanocytes of the hair and dissimilar from the keratinocytes. The cells are dendritic, have no tonofilaments or intercellular bridges. They have large and more numerous mitochondria and a more complex endoplasmic reticulum than the keratinocytes. They may or may not contain melanin granules.

Togashi investigated activators and inhibitors of the tyrosinase reaction. Ultraviolet rays activate in vivo, copper sulfate and also cuprous chloride in vivo and in vitro, but not cupric chloride. Copper-affine substances such as thiourea, methylthiouracil, methionin etc. may interfere with the reaction. According to *Breathnack* tyrosinase activity of melanocytes of freckles is higher than that of surrounding pale skin even if excess copper is supplied. Melanogenic potential is correlated with size and density distribution of melanocytes. *Sato* applied Unna's potassium permanganate-methyl green method for indentification of sites of oxygen and reducing agents to epidermis before and after ultraviolet exposure. The prickle cell layer above a pigmented basal layer reduces, that of non-pigmented (vitiliginous) skin oxidizes while the basal layer always is an oxygen site. A phase difference seems to be essential for active melanin formation. Close special association of melanocytes and mast cells in the corium suggests that the latter act as oxygen sites.

HAIR IN MAN

Hamilton et al. examined growth of facial hair in 700 Japanese men and women. Facial hirsutism was not encountered among the women. Weight of beard shavings in men increased for several decades after puberty while it reaches an early peak and then declines in Caucasians. The continuing increase in Japanese is due to gradual extension of the bearded area and greater coarseness of hair in later age. *Majewski* describes a case of uncommonly long eyelashes in a 4 year old girl, 14 mm. on the upper lid, 7 mm. on the lower. *Krishna* suggests a correlation of shape of head and pattern of male baldness, dolichocephalics tending to have frontal loss of hair, brachycephalics alopecia of the vertex.

Berg gives an excellent detailed description of methods and features of value in the examination of hair for forensic purposes. Collection and analysis of dust from a hair sample, macroscopic and microscopic examination of the hair, its physical properties and many other details may be useful in identifying or excluding an individual. *Hirsch, Schlabow* examined hairs of corpses recovered from bogs, the most ancient 2000

years old. They describe very slow disintegration of this unusually resistant biologic material. *Jungklass* recommends an apparatus constructed in 1936 by *Sergio Sergi* for the microscopic examination of variable characters of the hair shaft. The instrument (tricocicloforo) permits rotation of the stretched hair and examination of all its diameters. *Jungklass'* data on scalp hair of West German men and women include that male hair generally is thicker, the distribution curve having a rather steep peak at about age 20 in the male, while the female curve is flatter. Cross section index varied from 60-66, male hair tending to be more elliptical.

Van Scott, Ekel determined the volume of matrix and dermal papilla of growing hairs in sections of normal and alopecic scalps. Normally the ratio matrix: papilla is about 10:1, that of cells in papilla: mitoses in matrix about 9:1. There is proportionate reduction of both elements in early male baldness. In alopecia areata, the matrix is reduced more than the papilla. *Klingmuller* used the fact that capillary endothelia and the papilla of growing hairs have high alkaline phosphatase activity to follow the cyclic changes of these structures. There is a net of predominantly circular capillaries around the lower part of the growing follicle. One vessel enters the papilla where it coils up. Capillaries largely disappear in catagen, one ascends toward the enzyme ball which marks the lowest point of the receding epithelial column. In telogen, this capillary often forms a loop as indication that the vascular plexus does not degenerate to as high a level as the follicle itself. The classical picture described by older authors, namely that the shrinking follicle pulls the fibrous root sheath with it inverting it like a stocking, was found only in the acute phase of alopecia areata. *Jarrett* describes that thioflavine-T staining causes the hair and epidermal keratin to fluoresce blue, while the inner root sheath appears bright yellow, due to RNA content. Results of treatment with ribonuclease or peracetic acid suggest that disulfide bonds of the inner root sheath are protected by RNA-containing protein. *Puccinelli* measured birefringence of hair by retardation values and obtained a curve complementary to the trichopachygram. The conclusion that hair must have a non-uniform structure was verified by electron microscopy, which revealed granular material between the keratin fibrils. Electron microscopy of cuticular cells of hair revealed to *Sikorski, Simpson* that the cell membrane facing the cortex carries several outside layers, which they identify as endocuticle, exocuticle, and epicuticle.

There seems to have been a breakthrough in the study of hirsutism in women in the last year. Older papers usually stated that hirsute women rarely show demonstrable disturbance of steroid metabolism, some suggested that hair growth approximating the male pattern was in the realm of constitutional variability. Quite a number of recent studies, however, report various abnormalities of endocrine function. A few of these will be quoted to show that hirsutism has ceased to be in the realm of "normal" anatomy. *Fleck* defines hirsutism as excessive growth of hair in areas generally considered subject to male hormonal influence and distinguishes it from hypertrichosis meaning growth of visible hair in areas normally devoid of it. He quotes *Pellegrini, Piotti* for the classification of hirsute women into 4 groups, 3 of which have excess or decrease of the various ovarian, adrenal, and pituitary factors, while the fourth has normal urinary values. According to *Gallagher et al., Perloff et al.* excretion of such hormones as androsterone, etiocholanolone, and 11-oxy or 11-desoxy compounds is increased regularly. *Nabarro et al.* find the cortical stimulation test of considerable value in borderline cases. *Prunty et al.* contrast hirsutism as part of the Stein-Leventhal syndrome with the "idiopathic" type and find high 17-ketosteroid values in all cases of the latter, but not the former.

Sweat Glands in Man

Ehring studied the epidermal part of the sweat duct on fingertips and nailfolds by surface microscopy. The poral cups on the fingertips are round or slightly oval, with a diameter of 100-160 μ parallel to the ridges, 100-140 μ at right angles. He quotes *Koelliker* as having given their diameter as $^1/_{16}$ Parisian line (140 μ). The lumen is slit-like with a large diameter of 16-43 μ (average 26) and small diameter of 8-33 μ (average 16) in the nailfold. The cells lining the duct can be seen with higher magnification. Repeated examination shows that the entire duct moves straight up at a speed of 2.6 μ per hour. Electron microscopy of Negro finger skin showed *Hibbs* that the light-microscopist's dark and clear cells of the sweat coil correspond to cells with lightly or strongly osmiophilic cytoplasm. Intercellular canaliculi and microvilli on the luminal surface were recognized. Apposed cell surfaces have complicated folds. Myoepithelial cells are described and also a new type of cell resembling the secretory type, but containing varying numbers of myofibrils. The eosinophilic cuticle of the duct seems to correspond to osmiophilic bands just below the luminal cell surface. *Dobson et al.* describe histo chemical changes in eccrine glands after profuse sweating and during recovery, especially temporary decrease of glycogen and increase of esterase.

Ohara studied occurrence and morphology of apocrine glands on the female genitalia and found them present in 3 young Japanese women. absent in two older ones. *Yasuda* determined phosphorylase activity in axillary glands. Apocrine glands are negative, while the basal cells but not the luminal cells of ecerine coils and ducts are reactive. *Winkelmann, Hultin* found mucinous metaplasia of grossly normal axillary a-glands in 61 of 100 autopsy specimens. While frequency increased with age, this phenomenon was observed in one ten year old patient and may be a normal physiological alteration.

Nail

Geoghegan, Roberts observed great individual variation, but marked retardation of nail growth in arctic climates. *Lausecker, Thums* describe partial doubling of the distal phalanx and a double nail on a toe after injury to the base of the digit in childhood.

Alkiewicz discusses the occurrence of melanin in the nail plate. It is distributed diffusely in apes, occurs in the form of longitudinal stripes in Negroes.

(*To be continued*)

Industry's Books . . .

The Actinomycetes, *Vol. II, by Selman A. Waksman, The Williams & Wilkins Company, Baltimore, Md. (1961), 363 pp.,* **$15.**

This second volume presents the classification, identification and descriptions of genera and species. The author is now convinced that the actinomycetes belong among the bacteria and not with the fungi, evidence for which view he presented in his first volume. The work contains two Appendixes, the first giving color designations for describing actinomycetes, the second describing certain important media for their study. References, an index of organisms, and a general index are provided.

The Pfizer Handbook of Microbial Metabolites, *by Max W. Miller, Ph.D., Pfizer Medical Research Laboratories, Chas. Pfizer & Co., New York, (1961), cloth,* **$15.**

This is a new and unique manual of fermentation chemicals. The only reference work of its kind for biochemists and scientific workers in related fields, the Pfizer Handbook is the first effort to provide data on the source and the physical properties of all known metabolic products isolated from bacteria, molds, fungi and lichens. It describes biosynthetic pathways to fermentation chemicals and contains information on large molecules whose importance in immunology and genetics is now widely recognized. The Pfizer Handbook lists over 1300 metabolites with their physical and chemical properties, molecular structures and the organisms involved in their production. The book covers a large number of Streptomyces metabolites, the genus of microorganisms which has been one of the richest sources of new antibiotics during the last ten years.

Heterocyclic Compounds, Vol. 7, *Edited by Robert C. Elderfield, University of Michigan, 878 pp., John Wiley & Sons, Inc., New York (1961), cloth,* **$37.50.**

Volume 7 of Heterocyclic Compounds presents the chemistry of polycyclic compounds containing two oxygen or two nitrogen atoms in different rings and the chemistry of five-and six-membered monocyclic compounds carrying three hetero atoms, together with the benzo derivatives of the latter when such treatment appears to be warranted. Contents: Chapters 1. Compounds Containing Two Hetero-Oxygen Atoms in Different Rings—W. Basil Whalley. 2. Naphthyridines—Martin J. Weiss and Charles R. Hauser. 3. The Carbolines—W. O. Kermack and J. E. McKail. 4. Phenanthrolines—W. O. Kermack and J. E. McKail. 5. Monocyclic Triazoles and Benzotriazoles—J. H. Boyer. 6. Oxadiazoles—J. H. Boyer. 7. The Thiadiazoles—William A. Sherman. 8. s-Triazines—Edward J. Modest. 9. The 1,2,4- and 1,2,3-Triazines—Jerome P. Horwitz. 10. Oxadiazines, Thiadiazines, and Their Benzo Derivatives—Gardner W. Stacy. Index.

The Merck Manual of Diagnosis and Therapy, *Tenth Ed. (1961), 1905 pp., Published by Merck Sharp & Dohme Research Laboratories, Div. of Merck & Co., Inc., and available from Publications Dept. Merck & Co., Inc., Rahway, New Jersey.* **$7.50** *for the Regular Edition,* **$9.75** *for the De Luxe Edition.*

More than 100 outstanding clinicians in the United States, Canada and abroad served as authoritative sources for the 384 chapters that comprise the Tenth Edition of The Merck Manual. Subsequently, the editorial board, its consultants, and staff carefully assembled the contributed information into concise, convenient handbook form. As with previous editions dating back to 1899, the objective was to provide physicians with well-organized, up-to-the-minute facts, so as to reinforce postgraduate medical education, facilitate accurate diagnosis, and promote the employment of effective treatment. Sufficient etiologic, physiologic, pathologic and other background material is included to ensure a rounded, thoughtful approach to each entity presented. More than 20 new subjects and many original illustrations and added tables help to keep this edition as thoroughly in step with recent developments as were its predecessors.

Part I, considerably enlarged, now embraces 21 sections. A striking, time-saving innovation is the grouping of all prescriptions into a single area, under workable categories and keyed to a system of easy-to-find numerical designations. Conveniently adjacent are nine chapters summarizing several specialized forms of therapy.

Part II presents practical advice on clinical, nursing, office, laboratory, and selected pediatric and immunization procedures. Likewise, preoperative and postoperative routines, exhaustive dietary data and directions, and practical reference tables are instantly available.

Techniques of Plant Maintenance & Engineering, *Vol. 12, 349 pp., 8½ x 11", Banner & Grief, New York (1961), cloth,* **$10.**

The annual volume is a verbatim report of the Plant Maintenance & Engineering Conference, held in Chicago in January of this year, in conjunction with the Plant Maintenance & Engineering Show. It contains the texts of 37 papers, illustrated by 114 charts, diagrams and tables, and supplemented by the discussions of 607 questions presented by the audience.

Chemistry of Drug Metabolism, *by William H. Fishman, Ph.D., Tufts University School of Medicine, 235 pp., Charles C. Thomas—Publisher, Springfield, Ill. (1961), cloth,* **$10.50.**

The author has established a continuity in subject matter, which leads the reader logically from the factual treatment of the metabolic transformations of organic chemicals and drugs to a variety of biochemical mechanisms of drug metabolism. He gives considerable attention to the process of metabolic conjugation with emphasis on the glucuronic acid conjugation, including a modern treatment of glucuronic acid biochemistry. Included also is an account of recent research trends in the author's laboratory which are relevant to the subject. A product of this monograph has been a formulation of several interesting suggestions relating to the role of ascorbic acid in metabolic transformations, possible precursors of 16-, 17- dihydroxysteroids, and the view that metabolic conjugation may be regarded as a hydrogen replacement reaction.

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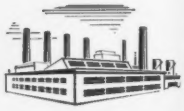
MANUFACTURING DEPARTMENT 	High and rapid solubility.	Compatible in multivitamin formulae.	Economical, less time and labor in compounding.	No solubilizer needed.	Make clear solutions of 30 mg. or higher per ml. of water.	No special techniques required. Relieve technical department problems.
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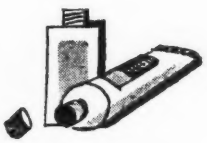

Advancing Therapy

Ovarian Cancer Therapy

Results obtained by chemotherapy in advanced ovarian cancer were reported by Vaitkevicius, Talley, Brennan, et al. of the Henry Ford Hospital, Detroit, Mich. (*J. Mich. Med. Soc.*, April 1961, pp. 492-6).

The authors review their experience with 60 patients suffering from advanced ovarian cancer. Some patients in this group were treated with uracil mustard (U 8344). Other chemotherapeutic agents used in this series included triethylene melamine, triethylene thiophosphoramide, chlorambucil, cyclophosphamide, 5-fluorouracil, and vincaleukoblastine.

Certain general conclusions were drawn from this study. The course of ovarian carcinoma is unpredictable; long-term survivals without therapy have occurred despite dissemination of the disease. Systemic chemotherapy is indicated only when there is actively progressive and symptomatic disease. In about 1/3 to 1/2 of the patients with advanced ovarian cancer may one expect to relieve symptoms effectively; some prolongation of life may be possible. The average survival after the appearance of symptoms was 13.2 months in 26 systemically treated patients responding to chemotherapy, 6.5 months in patients not responding to systemic therapy, and 5.6 months in local treatments.

Chlorambucil and cyclophosphamide appear to be the drugs of choice at this time in the treatment of ovarian cancer. They are preferred because of their relative safety and ease of oral administration, not because of any greater efficacy. There seems to be cross-resistance between the different radiomimetic drugs. Patients resistant to radiomimetic drugs may be treated effectively with drugs having a different mechanism of action, such as 5-fluorouracil and vincaleukoblastine.

The usual dosage schedule of uracil mustard was 0.03 to 0.05 mg/kg on alternating days, administered orally. Of nine patients treated with this drug, two had good objective regression, two had partial objective regression, and five showed no objective effect.

Hypotensive Action of Methoserpidine

Methoserpidine, a synthetic nondepressant isomer of reserpine was administered in a clinical trial to 30 ambulant patients with hypertension of moderate severity. (Mary C. Holt, Royal Eye Hospital, London, *Brit. Med. Journal*, Aug. 12, 1961. pp. 415-8.)

Treatment was initiated with 15-30 mg. of methoserpidine daily, given in divided doses after the three main meals. Full therapeutic effect was obtained in two weeks in most cases, and the maintenance requirements varied considerably, ranging from 5 to 80 mg. daily. The concurrent use of other hypotensive agents was avoided, but weight reduction was advised where indicated.

Two-thirds of the cases showed a good hypotensive result, and serious side-effects were absent. Only two subjects showed depressive reactions, and these were mild and only doubtfully related to the action of the drug. On the other hand, 11 patients with anxiety depression prior to treatment were relieved of their symptoms.

Although relatively expensive, methoserpidine seems likely to prove a useful hypotensive agent for the patient who is unable to tolerate reserpine owing to side-effects or in whom depression makes the use of this drug unwise. The relative freedom from sedative effect suggests that methoserpidine may also be of value where diminution of mental alertness is particularly undesirable.

Fluphenazine in Psychoneuroses

Halogen substitution and introduction of a piperazine ring into the side chain of the chlorpromazine molecule have yielded compounds which are effective in small doses, thus exhibiting reduced hypnotic potential and neurotoxicity.

Fluphenazine, a new trifluoromethyl homolog of perphenazine, is such a drug; the complete chemical formula is 4-{3[2-(trifluoromethyl)-10-phenothiazinyl]propyl}-1-piperazineethanol dihydrochloride.

A study was conducted at Hahnemann Medical College and Hospital, Philadelphia, to investigate short-term effectiveness of this new compound in ambulatory patients with anxiety reaction when either a daily single dose or small divided doses are administered.

A report of this work appears in the April 1961 issue of *Postgraduate Medicine*, pp. 408-14 (Tibor Bodi, J. H. Nodine, P. E. Siegler, H. A. Levy, J. H. Moyer).

Fluphenazine was clinically evaluated in 37 ambulatory patients suffering from psychoneuroses. Clinically satisfactory response was observed in 27 patients or 73 per cent of the group, most of whom were treated with 0.5 mg. or less per day. Placebo therapy in 19 of the 37 patients resulted in some improvement in 10 or 53 per cent, but only two of this group had a clinically satisfactory response. Omitting doubtful reactors, the ratio of those who responded to the drug only to those who responded to the placebo only was 13:1. This is statistically highly significant, with a correlation coefficient of less than 0.01 the authors state. Hypnotic activity was minimal, requiring discontinuation of therapy or reduction of dose in a few patients only. There were few extra-pyramidial signs at our low-dosage schedule, except for mild akinesia in four patients, which did not interfere with the therapy. The investigators believe fluphenazine to be a potent psychopharmacologic agent in the management of clinic or office anxiety states and other psychoneuroses.

No serious toxic effects were observed in this series of patients the authors report, but further study is needed to test for possible agranulocytosis and hepatic damage.

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ADVANCING THERAPY *(Cont.)*

Tetracyclines and Sulphonamides vs. Gonococcus

Today's armatorium against gonorrhea consists mainly of the tetracyclines and sulfonamides, according to a recent editorial in *Brit. Medical Journal* (Aug. 19, 1961, p. 504-5).

The gonococcus has shown unexpected resourcefulness in developing tolerance to penicillin. In Great Britain relatively insensitive strans associated with failure to respond to treatment with penicillin were first noted in London in 1957. Subsequent surveys in other areas have shown that such strains are widely distributed throughout the country, though the highest level of resistance reached in 1957 has reportedly not yet been exceeded.

Streptomycin has been the drug of second choice for the treatment of gonorrhoea, but it appears that resistance to this antibiotic is also increasing. F. R. Curtis and A. E. Wilkinson have found that in 1957 only 1.2 per cent of strains were resistant to streptomycin *in vitro;* in 1960-1 the figure had risen to 7.2 per cent. Streptomycin has been widely used in France for the treatment of gonorrhoea since 1951, and V. Roiron and colleagues have recently reported that 28 per cent of strains are now resistant.

Gonococci resistant to streptomycin show, in contrast to their behaviour with penicillin, complete resistance to the antibiotic. Both Reyn and Bentzon and Curtis and Wilkinson have noted that there is a correlation between resistance to penicillin and resistance to streptomycin. Many of the strains only inhibited by 0.125-0.5 unit/ml. penicillin were completely resistant to streptomycin, whereas resistance to the latter drug is uncommon among strains which are sensitive to penicillin. Fortunately the gonococcus is still sensitive to the tetracyclines, and it has apparently largely recovered its sensitivity to the sulphonamides.

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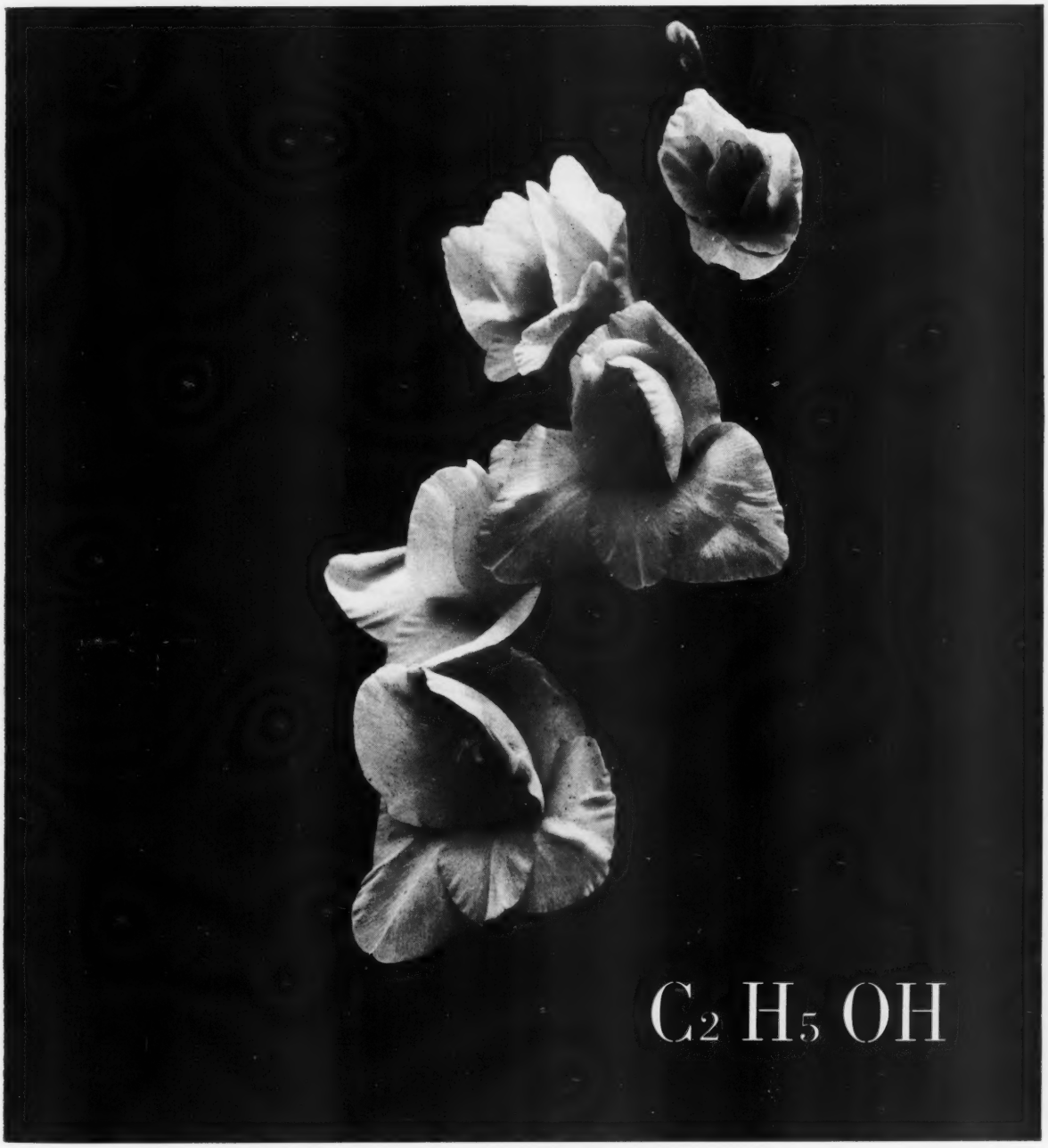

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TRADE LITERATURE

Polyvinyl Alcohols. Air Reduction Chemical & Carbide Company, 150 East 42nd Street, New York City—16-pg. bulletin discusses Vinol fully hydrolyzed polyvinyl alcohols. The resin and film properties of Vinol 125 and 230 are described in detail.

Research Biochemicals. Mann Research Laboratories, Inc., 136 Liberty Street, New York City 6—reference guide and price list (#127) contains a section listing 179 new products.

Polypropylene Films. Hercules Powder Company, Hercules Tower, 910 Market Street, Wilmington 99, Del.—12-pg. booklet on Pro-fax polypropylene covers markets, properties, processing, converting and packaging. Charts and tables are included.

Biochemicals. Pfanstiehl Laboratories, Inc., 1219 Glen Rock Avenue, Waukegan, Ill.—46-pg. catalog of biochemicals, including rare sugars, amino acids and derivatives, lists structural formulas, specifications, systematic names, synonyms and prices.

Glass Containers. Glass Container Manufacturers Institute, Inc., 99 Park Avenue, N. Y. C. 16—64-pg. industry fact book is divided into seven sections on various aspects of the glass container industry. It contains 15 photographs, a bibliography, and a chronology of important glassmaking events.

Surfactants. Continental Chemical Company, 195 Twenty-First Avenue, Paterson, N. J.—formulary contains suggested starting formulations for compounds used in the chemical, soap, and cosmetic industries.

Horizontal Mixers. Young Machinery Company, Inc., Muncy, Pa.—12-pg., illus., technical catalog describes horizontal mixers for free-flowing, granular materials. Design, technical and dimensional data are included for mixers ranging in capacity from ½ to 500 cu. ft.

Warehousing. Rapids-Standard Company, Inc., 342 Rapistan Bldg., Grand Rapids 2, Mich.—16-pg. brochure discusses war housing approach to management of materials flow. Equipment and techniques for live storage and transportation of raw materials and finished products are illustrated.

Stretch-Pak. Nevins Company, 800 State Highway 3, Clifton, N. J.—4-pg. booklet describes Stretch-Pak display packages, two types of services and automatic and semi-automatic equipment.

Tablet-coating. F. G. Okie, Inc., Ambler, Penna. (Dept. A-2)—brochure gives information on Velo, opaque color concentrates for use in a revised method of tablet-coating.

Sound and Vibration Eliminators. General Rubber Corporation, 70 Summit Street, Tenafly, N. J.—4-pg., illus. SoundZorber catalog (#890) covers the company's line of flexible, wire-reinforced rubber sound and vibration eliminators.

Hammer Mill. Sprout, Waldron & Company, Inc., 130 Logan Street, Muncy, Penna.—4-pg. bulletin (#236) describes hammer mills for the processing industries. Drawings, photographs and specifications are included.

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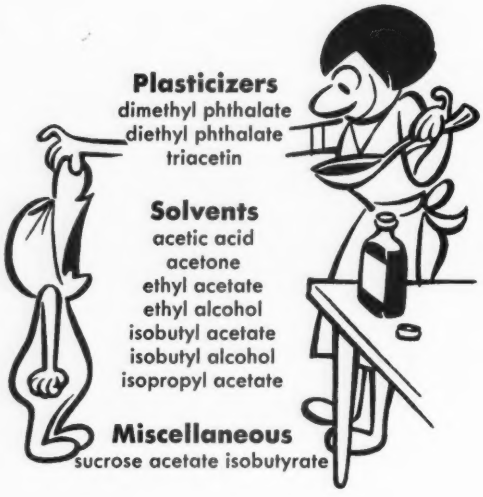

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Robane. Robeco Chemicals, Inc., 25 East 26th Street, New York City 10—4-pg. brochure describes Robane, which accelerates percutanious penetration of incorporated medicinal agents.

Lined Rubber Tubing. Pennsylvania Fluorocarbon Company, Inc., 1115 North 38th Street, Philadelphia 4, Penna.—illus. bulletin describes Teflon-lined rubber tubing.

Laboratory Mill. Pallmann Pulverizers Company, Inc., 315 Newark Street, Hoboken, N. J.—bulletin (TD-101) describes new laboratory mill. It includes pictures and drawings of the unit, operation principle, and types of materials that can be ground.

Vacuum Metallizing. F. J. Stokes Corporation—21-pg. catalog covers uses, materials and properties, basic advantages, modern developments, basic steps in the process, Stokes design and construction advantages, and specifications for vacuum metallizing.

Portable Mixers. Cleveland Mixer Company, Box 197, Dept. N30, Bedford, Ohio —12-pg. bulletin (#194) gives engineering data on portable mixers. Description of the factors involved in mixer selection, and a table are included.

Checkweighers. Toledo Scale Corporation, Toledo 12, Ohio—8-pg. booklet (#2968a) illustrates the complete line of automatic in-line checkweighers. Information on the accuracy, speed, weight ranges, construction, and industrial applications is included.

Centrifugal Pumps. Goulds Pumps, Inc., 220 Black Brook Road, Seneca Falls, N. Y.—16-pg. illus. bulletin (725.9) gives bearing life, and shaft deflection data, a frame selection chart as well as performance, specifications, construction details, and dimensions of a new line of single-stage centrifugal pumps.

Homogenizers. Sonic Engineering Corporation, 146 Selleck Street, Stamford, Conn. —6-pg., illus. brochure describes line of homogenizers, giving techniques and applications.

Packaging Line Conveyors

U. S. Bottlers Machinery Company, 4015 North Rockwell Street, Chicago 18, Ill.—bulletin, Packaging Line Conveyors, describes conveyor systems, the company's increased conveyor production facilities, and advanced operating components, as well as its staff, which supplies engineering assistance. It is available to packaging line executives upon request.

Centrifugal Contactors. Podbielniak, Inc., 341 East Ohio Street, Chicago 11, Ill.—brochure (P-100) describes line and operating principle of centrifugal contactors, solvent extractors, chemical reactors, separators and clarifiers. Illustrations, diagrams, applications, and complete specifications are included.

Poxyglas Tanks. Black, Sivalls & Bryson, Inc., Product Information Department, 7500 East 12th Street, Kansas City 26, Mo.—6-pg. bulletin (#45-115) discusses applications of corrosion-resistant tanks, features of the glass-resin material, and the manufacturing method.

Blister Packages. Hopple Plastics, Inc., 1014 Broadway, Cincinnati 2, Ohio—full-color catalog sheet illustrates and describes the firm's blister packages designed for maximum visibility and pilferage protection.

Rotocycle Meters. Rockwell Manufacturing Company, Industrial Meter Division, 390 North Lexington Avenue, Pittsburgh 8, Penna.—20-pg. illus. catalog (P-100) describes Rotocycle Meters for all liquid metering applications, specifications and dimensions of 14 basic types. Micro adjustment calibration is explained and illustrated, and 13 accessories are graphically illustrated.

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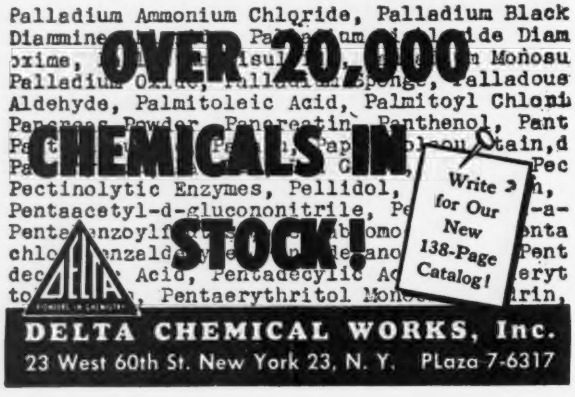

HAIR COLORING AND BLEACHING

(*Continued from page 538*)

safety for the hair. Much was made of the fact that this product was acid. It is true that much less hair damage is caused by acid bleaches, but the amount of damage is almost directly related to the final loss of color achieved. An alkaline bleach which gave as little effect as this product did would also do very little damage.

The presence of heavy metals, either in the bleach composition or on the hair, acts as a catalyst for the breakdown of hydrogen peroxide. Hair which has been colored with metallic compounds will occasionally catalyze a disastrous reaction in bleach compounds, causing them to become violently active with much resultant damage to the hair.

Any oxidative bleach causes irreversible damage to the hair, which is directly related to the amount of decoloration. The oxidizing agents break the main cross link which holds together the keratin polymer, cystine. The S-S linkage is cleaved and cysteic acid formed. This is in contrast to the reaction involved in *permanent waving* of the hair, where the same cystine linkage is cleaved, S-S being reduced to 2SH, a mercaptan form. This mercaptan however can be reoxidized at least 70 per cent and sometimes as high as 90 per cent during the neutralizing step of the permanent wave so that the hair is finally left weakened only 10-30 per cent. *This is not the case with bleaches.*

Bleached hair is particularly susceptible to alkali, being somewhat soluble in it. As a result, women with very badly bleached hair cannot even comb it out while it is wet after a soap wash. It is soft, gelatinous, and rubbery under such conditions. When dried, it becomes harsh, porous, stiff, and brittle. At worst it feels like hemp.

In a recent paper, Peter Flesch of the University of Pennsylvania described the use of acid aftertreatments to restore some strength to bleached hair. The mechanism is unknown as yet, but simply passing such hair through a solution of *p*H 3.8 or lower will strengthen it. It will still feel like hemp, however.

VANILLA AND MADAGASCAR

(*Continued from page 447*)

The government has further stated that the minimum prices set will remain in effect throughout this year, and that contracts for new crop material, usually made in August, would not be made until all the present crop material has been sold.

A few years ago Madagascar was forced to destroy 600 tons of beans because no market could be found for them. However, there is no indication that such drastic action will need to be repeated.

The tremendous world population increase is a boon to the vanilla industry. Vanilla consumption

Bundling and bundles of vanilla beans.

has not increased in any degree comparable to this potential market.

If legislation, under consideration by the Food and Drug Administration, requiring labeling to show actual ingredients of soft drinks and ice cream, finally goes into effect, sophistication by the substitution of synthetic products should definitely increase the consumption of natural vanilla.

MER/29

(*Continued from page 491*)

erences.

4. Advertising and direct mail were closely coordinated—even as to color. The initial insert and the direct mail folders were all printed in pearl gray, which is the color of the MER/29 capsules.

5. Advertising also used a newsy approach, in keeping with the newness of MER/29. Ads carried the overline, "The Facts About MER/29," and one series of insertions were called, "MER/29 Notes."

In short, introduction of MER/29 is a good case history of the varied marketing tools used today in bringing a new pharmaceutical to market.

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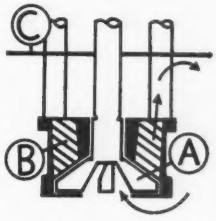

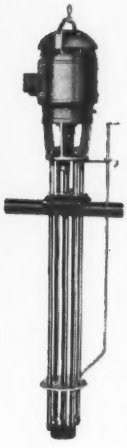

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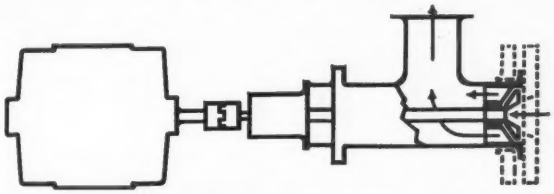
5-H	10	3500	4.938″	to 500
7-H	20	3500	5.625″	to 1000

*for comparison only. Actual output ranges from 50% to 200% of figures given.



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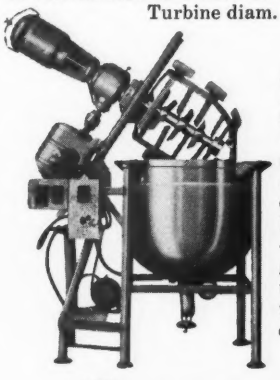

AGI-MIXER: Homo-Mixer head combined with contra-rotating scraper paddles. Can be operated together or separately. Jacketed kettle and automatic temperature controls available. Versatile, handles a series of processes — melting, stirring, homogenizing, etc. — without transferring material. Kettle sizes from 3 to 1000 gals or larger.

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